Response to Comments Summary

West Old Town Landfill License Amendment Application

Prepared by the Department of Environmental Protection

April 2004

Introduction

This document contains a summary of comments received and Department of Environmental Protection responses to those comments concerning the application of the State of Maine (State Planning Office) to amend the existing license for the West Old Town Landfill. This application (DEP#S-020700-WD-N-A) proposed the acceptance of additional waste types, an increase in the approved final elevation of the landfill and associated design and operational changes, in order to facilitate use of the landfill as a State-owned solid waste disposal facility. The application was submitted to the Department on October 30, 2003 and was accepted as complete for processing on November 21, 2003.

This comment and response summary is a compilation of all comments and questions received by the Department during review of the above described application. Specifically, it includes all comments received from interested parties in writing, comments made verbally at the public information meeting held on January 21, 2004 in Old Town, and comments from the transcript of the public sessions held on March 29-30, 2004 in Old Town.

The comments and questions in this summary have been categorized and consolidated for ease of reading and to avoid duplication. Every effort has been made to capture the substance and spirit of each comment and question although due to the need to combine and consolidate they may not be presented exactly as each writer or speaker originally presented them.

REFERENCE INFORMATION

LIST OF ABBREVIATIONS AND ACRONYMS USED IN THIS DOCUMENT

CDD	construction and demolition debris
CMR	Code of Maine Rules
CQA	construction quality assurance
EPA	U.S. Environmental Protection Agency
FEPR	Front end process residue
GCL	geocomposite clay liner
GP	Georgia-Pacific Corporation
MCL	maximum contaminant level
MDEP	Maine Department of Environmental Protection
MDOT	Maine Department of Transportation
MIF&W	Maine Inland Fisheries and Wildlife
MSW	municipal solid waste
NEWSME Operations	New England Waste Services of ME, Inc. Landfill Operations, LLC
OSA	Operating Services Agreement
SPO	Maine State Planning Office
WOTL	West Old Town Landfill

LIST OF REGULATIONS REFERRED TO IN THIS DOCUMENT

06-096 CMR Chapter 2 ---"Rules Concerning the Processing of Applications and Other Administrative Matters", effective April 1, 2003

06-096 CMR Chapter 20 --- "Regulations for Hearings on Applications", effective September 11, 1975

06-096 CMR Chapter 30 --- "Special Regulations for Hearings on Applications of Significant Public Interest", effective May 15, 1973

06-096 CMR Chapter 411 --- "Non-Hazardous Waste Transporter Licenses", effective March 13, 1991

06-096 CMR Chapter 850 --- "Identification of Hazardous Wastes", effective July 1, 1980

Chapters of the Maine Solid Waste Management Regulations, effective November 2, 1998 (referred to as "the Regulations")

06-096 CMR Chapter 400 --- "General Provisions"

06-096 CMR Chapter 401 --- "Landfill Siting, Design and Operation"

06-096 CMR Chapter 402 --- "Transfer Stations and Storage Sites for Solid Waste"

06-096 CMR Chapter 405 --- "Water Quality Monitoring, Leachate Monitoring and Waste Characterization"

06-096 CMR Chapter 409 --- "Processing Facilities"

06 096 CMR Chapter 419 --- "Beneficial Use of Solid Wastes"

RESPONSE TO COMMENTS
(by topic)

I. STATUTORY and REGULATORY AUTHORITY

Comment: Why does the MDEP consider only technical issues instead of the quality of life issues, including decreased property values, that will affect those around this landfill?

Response: *The statutory authority for MDEP's Solid Waste Management Regulations is the Maine Hazardous Waste, Septage and Solid Waste Management Act (38 M.R.S.A. §1301 et seq.). Any rules adopted by the MDEP must be based on the criteria provided in statute. With regards to the quality of life-type issues, the statute requires that the applicant make adequate provision for fitting the proposed solid waste facility harmoniously into the existing natural environment and that the MDEP find that the proposed solid waste facility will not unreasonably adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities. These criteria are addressed in 06-096 CMR 400. Section 4 of this chapter specifies the standards to be met and the submission requirements for each of the above criteria. The MDEP developed the submission requirements to address the issues inherent in solid waste management, intending the result to be objective and protective decisions consistent with these criteria.*

II. FINDINGS OF FACT IN THE LICENSE

1. APPLICATION SUMMARY

Comment: Why is this proposal not an expansion?

Response: *The term "expansion" is defined in 06-096 CMR Chapter 400. "Expand", as it applies to solid waste landfills, means to dispose of solid waste beyond the horizontal boundaries previously approved by the MDEP for solid waste disposal, except when allowed as part of a MDEP approved closure activity." The pending amendment application does not include the disposal of solid waste outside the currently licensed solid waste boundary. Section 3.B(2)(a) of 06-096 CMR 400 specifies that "(A)n application to increase the approved final elevations at solid waste landfills must be processed as a license amendment application.".*

Comment: GP did not shut down its mill. It shut down 2 tissue machines and 13 converting lines. Three hundred jobs were to be eliminated, but only

150 jobs were actually eliminated. The pulp mill and dryer operations were not shut down.

Response: : *The order has been changed to address this comment.*

Comment: The February 17, 2004 draft order says no complaints were received on the operation of the existing landfill. People have contacted GP; they didn't know they should contact the MDEP.

Response: *Staff contacted GP about the number of complaints received in the past concerning the WOTL. GP indicated one person has called each spring about sweeping the entrance of the access road. Approximately one or two complaints about odors were received each year; the leachate pond was generally the source of the odors. In the past two years, the mill has received several calls concerning odors from the leachate trucks passing through downtown Old Town; this issue was addressed by work done on the trucks and changes to the hauling schedule. The license has been changed to reflect that no complaints were received by the MDEP.*

2. PUBLIC PARTICIPATION

Comment: Why was no public hearing held?

Response: *06-096 CMR Chapter 2, Section 7 addresses the timeframe for requesting a public hearing, the criteria the MDEP uses in deciding whether or not to hold a public hearing, and what regulation apply when the MDEP conducts a public hearing. The MDEP received 6 timely requests for a public hearing; one of those was withdrawn. The MDEP determined that none of the 5 remaining requests for a public hearing provided or implied evidence of credible conflicting technical information regarding a licensing criterion, and/or that it was likely that a public hearing (as opposed to all of the other ways in which comments on the application could be provided) would assist the MDEP in understanding any evidence that could be provided.*

Comment: Are the written comments submitted on the application part of the record for the project?

Response: *Yes, all comments mailed or hand delivered to the MDEP are part of the record for the project.*

Comment: Are the comments made at the 3 public informational meetings part of the record for the project?

Response: *A summary of the comments made and the responses provided was prepared by MDEP staff after the January 21, 2004 meeting; this document is part of the record. All comments placed in the comment basket during the February 24, 2004 meeting are part of the record.*

The transcript from the March 29 and 30, 2004 meeting is part of the record.

Comment: Why didn't I get a response to my comments?

Response: *The MDEP has been open to receiving comments in all forms. In most cases, comments received in writing have also been discussed with the commentor (or in a group that included the commentor). In some cases, staff provided a written response to comments that were best addressed on an individual level. As noted in Finding of Fact #2 of the draft license issued on February 17, 2004, responses to comments that are within the MDEP's purview are addressed in the license.*

Comment: The January 21, 2004 public informational meeting was held after the deadline for requesting a public hearing passed, and was designed for minimal public input. People's concerns and frustrations were not addressed by the MDEP. The information was not given under oath and official minutes were not taken.

Response: *The deadline for requesting a public hearing was December 11, 2003. The January 21, 2004 public informational meeting was scheduled to respond to citizens' request for more information about the project in a way that allowed staff from several State agencies and the applicant to participate in a way that should have encouraged open communication. A written summary of the comments made and the responses provided by the panel is included in the record for the project.*

Comment: The format for the February 24, 2004 forum didn't work because people couldn't benefit from the answers being provided to others. The forum was simply a dog and pony show. There should have been presentations by MDEP instead.

Response: *The MDEP chose the forum as a way for people to learn more about the project. Many people at the forum indicated they appreciated the opportunity to converse with MDEP staff, and the others present, in depth. Attendees indicated they learned more about the project by asking the questions on a one-on-one basis than they could have by listening to presentations.*

Comment: Commentors protested the format and structure (time frames) of the March 29 and 30 sessions. The oral statements don't provide clear answers and are open to broad interpretation. The responses should have been in writing.

Response: *Written transcripts of the sessions held both days were prepared by the court reporters covering the sessions; these transcripts are part of the record, and are available to the public.*

Comment: People deserved a public hearing, not an opportunity for millworkers to speak and Casella to push its project.

Response: *The applicant for any project had the burden of proof to demonstrate to the MDEP that the licensing criteria have been met, and thus the applicant is an integral part of any proceeding on a project. Likewise, the MDEP does not have the ability to limit a proceeding only to those for or against a project. If a public hearing had been held, both the applicant and people advocating for approval of the project would have played a major role.*

3. DESCRIPTION OF SPO/CASELLA RELATIONSHIP

Comment: Who is liable for the WOTL while it's in service? Is there any liability that will be placed on Old Town, the State or the Municipal Review Committee?

Response: *The State is the owner of the WOTL. However, under the terms of the Purchase and Sales Agreement between GP and the State and the Operating Services Agreement (OSA) between the State and Casella, as the selected operator Casella has assumed liability for past, present and future actions at the WOTL. If the OSA is terminated, Casella remains liable for environmental matters or other damages at the landfill that occurred prior to the termination of the OSA, even if they are discovered after the termination. If the OSA is terminated, the State would begin the process of selecting another operator. No liability will be placed on Old Town or the Municipal Review Committee.*

Comment: NEWSME is a Limited Liability Company. Does it have sufficient assets to deal with environmental problems? If not, are Casella's assets accessible?

Response: *The parties to the Operating Services Agreement are the State of Maine and Casella Waste Systems, Inc. The sole membership interest of NEWSME Landfill Operations, LLC is held by a Casella subsidiary. Under the terms of the Operating Services Agreement, Casella is a guarantor of NEWSME Landfill Operations, LLC. Although NEWSME does have sufficient assets to operate the landfill, if necessary Casella's assets are accessible.*

4. FINANCIAL CAPACITY

Comment: What are tipping fees?

Response: *Tipping fees are the rates paid by persons/companies using the landfill. The fees vary by type of waste.*

5. TECHNICAL ABILITY

Comment: What are the penalties for violations? They should be as severe as possible.

Response: *The MDEP has a penalty procedure used to calculate the penalties for violations of its laws and regulations. The penalty structure includes consideration of financial gain from a violation, the overall environmental record of the alleged violator, and the actions taken to remediate a violation.*

Comment: What does "operating in substantial compliance" mean?

Response: *This is a term used by the MDEP to evaluate the compliance status of operating facilities. It distinguishes between the most important environmental standards and requirements and those requirements that are of lesser relative importance. An example is the difference between contamination in a monitoring well or failure to comply with the environmental monitoring program and a minor technical violation or recordkeeping requirement. A facility in substantial compliance generally would have only minor problems that can usually be corrected while the staffperson is on site or shortly thereafter.*

Comment: Why is self-monitoring allowed by the MDEP? Why is it not a conflict of interest?

Response: *Self-monitoring is a necessary component of the MDEP's regulations and policies. Within the Maine Solid Waste Regulations there are checks and balances on self-monitoring. Owners/operators are responsible for implementing an environmental monitoring plan, but the details of the plan are approved by the MDEP, and the results are evaluated by MDEP staff. MDEP staff are allowed access to facilities, with or without prior notification, and are allowed to take samples. Owners/operators are required to have qualified professionals collect the samples, and to use laboratories certified by the State to analyze the samples. These professionals are licensed by a State board having the ability to take disciplinary action if standards are not met.*

Comment: Has Casella made an honest attempt to meet the laws and regulations during this application process? Are they only complying with the minimum criteria?

Response: *Yes, Casella has addressed each applicable comment conveyed to Casella by staff either through the internal review process or by commentors on the application. In some cases, Casella has been willing to modify its proposal to address issues that either are not*

solid waste regulatory criteria, or to go beyond what is specifically required in those criteria.

Comment: How can the State do business with a company that disregards the law and cares only about making money? Casella has a poor record of compliance with the laws and its licenses.

Response: *Enforcement staff contacted in the states in which Casella does business noted that Casella had a history of admitting any errors and taking actions to correct any deficiencies found in a thorough, timely manner. MDEP staff have found Casella personnel to be conscientious and willing to go beyond what is required to achieve compliance. From the MDEP's conversations with staff in other states it is apparent some of the violations on the list distributed at the January 21, 2004 meeting by We the People resulted from actions or practices at facilities Casella purchased.*

Comment: The civil and criminal disclosure statement in the application is misleading; there are many more violations that should have been reported. Many of them have been listed on a handout provided by opponents at the 1/21/04 meeting.

Response: *MDEP staff questioned Casella, enforcement staff in other states, and some municipalities about the alleged violations listed in the handout. Many of the listings concern suits filed against and/or by Casella or Casella subsidiaries; the filing of a suit is not a violation nor is the filing of a suit proof that a violation occurred. Some of the suits listed in the handout have been settled in favor of Casella or withdrawn. Many other listings concern alleged violations outside the 5 year window specified in 06-096 CMR Chapter 400. MDEP staff did not find any alleged violations on the list that should have been included in the Civil and Criminal Disclosure Statement for this application.*

Comment: How many of Casella's violations were caused by human error?

Response: *It would be fair to say many of them were caused by human error. Based on the experience of MDEP staff and enforcement staff in other states where Casella does business, it would be unfair to say the violations were willful or intentional.*

Comment: Does Casella have a criminal record?

Response: *No*.

Comment: What actions did Casella take to "resolve its previous violations"? Were they resolved by paying a fine, or were fundamental changes made to correct the violations?

Response: *A monetary penalty was included in resolution of the majority of the violations. More importantly, actions to correct or remediate the violations were included, such as a process to cease co-mingling of recyclables at a facility in New York.*

6. **TITLE, RIGHT OR INTEREST**
(no comments received)

7. GEOLOGY AND HYDROGEOLOGY

Comment: The failure analysis included in the license amendment application showed contaminants transported at higher bedrock velocities would reach the stream.

Response: *Further review of the contaminant transport analysis submitted as part of the amendment application showed that release of contamination from either the landfill liner or leachate storage facilities met the travel times required by the Regulations. For the landfill liner the travel time is 6 years between the liner and the stream. For the leachate storage facility the travel time is 3 years.*

Comment: There is a potential for accelerated flow of groundwater through washed tills, stratified sandy till/sand zones, and fractured basal tills. Fractured bedrock will allow rapid transport of contamination to area wells.

Response: *The characteristics of groundwater flow and contaminant transport have been fully reviewed by the MDEP and meet the requirements of the Regulations. Groundwater flow in the vicinity of the landfill is localized and controlled by upward gradients in the lower portion of the site. The MDEP believes that it is highly unlikely that private water supply wells would be effected by landfill derived impacts.*

Comment: Characterization of groundwater flow in the bedrock aquifer is limited to water level measurements. Pumping tests are required to more completely understand the characteristics of the bedrock aquifer. Packer testing and borehole logging should also be performed on bedrock wells.

Response: *The MDEP did not need pumping test results to complete its review of this amendment application because the landfill footprint will not be enlarged. However, the MDEP does intend to require that pump testing be performed with future site investigation to more fully characterize the bedrock aquifer at the site.*

Comment: Use dye testing to determine the character of bedrock fractures.

Response: *Pump testing is a more effective method of evaluating the interconnection of bedrock fractures.*

Comment: How do earthquakes change the characteristics of groundwater flow in bedrock?

Response: *Groundwater flow in bedrock aquifers occurs in water-bearing fractures in the rock. Change in the configuration of these fractures is possible as a result of an earthquake. However substantial change in groundwater flow patterns is not likely without the occurrence of a major tectonic event. It is unlikely that the relative minor earthquakes experienced in the northeast United States are of significant scale to create a major reconfiguration of bedrock groundwater flow patterns in this area. However, even if bedrock fractures were reconfigured, groundwater would still discharge to the wetland downgradient of the landfill due to the influence of site topography.*

Comment: Leachate released from the upper portion of the landfill would not be captured by the landfill underdrain system.

Response: *Based on review of the simulated contamination transport model provided in the amendment application, leachate released from the upper portion of the landfill would enter the glacial till and bedrock aquifer. Upward groundwater flow gradients at the base of the landfill moved the simulated leachate into the underdrain beneath the lower 20% of the landfill footprint or into the wetland below the landfill.*

Comment: Information was presented as part of the March 29 & 30, 2004 WOTLF public session that indicated consistent upward groundwater flow gradients in the lower 20% of the landfill footprint. At what frequency were measurements made to support this conclusion? Did measurements indicate that the groundwater flow gradients were consistently upward?

Response: *Weekly water level measurements were recorded in 1990 as part of the initial hydrogeologic characterization of the site. In 1991 measurement frequency was reduced to monthly. Starting in 1992 water levels were recorded on a quarterly basis.*

The general groundwater flow gradient beneath the lower 20% of the landfill footprint is upward from the bedrock aquifer into the overburden glacial till. This conclusion is based on investigations performed in the early 1990's and water level measurements recorded as part of the on-going environmental monitoring program. For example, artesian conditions (i.e. water levels above the ground surface) were consistently noted at bedrock monitoring well MW-301 between 1997 and 2003. MW-301 is located on the southwest landfill boundary.

However, local inconsistencies have been observed within the glacial till. Based on over 90 water level measurements between 1990 and 2003, there is a consistent downward groundwater flow gradient at the nested monitoring well pair MW-216A&B. These wells are located on the southwest landfill footprint boundary. MW-216A is screened in the deep glacial till (approximately 45 feet below ground surface) and MW-216B is screened in the shallow till (approximately 20 feet below ground surface).

In summary, the general character of groundwater flow in lower portion of the landfill and downgradient wetland and stream is upward from the bedrock aquifer into the overburden till. However, there are areas within the till were the groundwater flow gradients are downward.

Comment: Why is this a good site if groundwater moves downward under 80% of the landfill footprint and moves upward under only 20% of the lower portion of the foot print.

Response: *From a groundwater flow perspective the primary advantage of the WOTLF site is that groundwater from beneath the site discharges from the aquifer up toward the wetland/stream to the southwest of the landfill. Opposite the wetland/stream from the landfill, between the stream and Route 43, is another topographic high that creates a groundwater flow gradient back towards the stream. The topography and groundwater flow gradients would prevent migration of contamination into areas outside of the wetland/stream.*

Comment: How do you know which way groundwater flows beneath the site?

Response: *Groundwater flow directions are evaluated based on water elevation measurements recorded from monitoring wells. Groundwater flows from wells with higher water level elevations toward wells with lower water level elevations. Water level measurements are recorded as part of groundwater monitoring events and hydrogeologic investigations. Measurements collected within a specific time period (usually within several days) are plotted on site figures. Contours of equal water level elevations are plotted on the figures. Groundwater flow lines are perpendicular to the contours.*

Comment: What is the hydrologic connection between the WOTL and drinking water supplies?

Response: *Results of hydrogeologic investigations indicate that groundwater flow downgradient and within the vicinity of the WOTL is local. Upward flow gradients in the lower portion of the site are expected to*

discharge groundwater into the landfill underdrain system or into the wetland south of the site. Based on the hydrogeologic conditions at the site the MDEP does not expect landfill-related impacts to water supply wells.

Comment: Additional monitoring wells should be installed to characterize groundwater flow patterns.

Response: *The MDEP is requiring that additional monitoring wells be added to the site monitoring program as part of the approval of the license amendment. Ten additional monitoring wells have also been proposed by the applicant to investigate groundwater quality impacts in the vicinity of the leachate pond.*

Comment: The license amendment should not be approved until water quality impacts in the vicinity of the leachate pond have been resolved.

Response: *The MDEP has determined that the facility is not contaminating ground or surface water. As noted in more detail elsewhere in this document, the water quality changes noted in the monitoring well network are subtle, yet are being addressed through the additional investigation requested by MDEP staff. The fact that the small changes were detected shows the monitoring network is functioning. 06-096 CMR Chapter 405 recognizes that water quality changes may occur, and provides a protocol to follow; that protocol is being followed at this facility.*

Comment: What is the full extent of groundwater contamination at WOTL?

Response: *Chapter 400 of the solid water rules defines contamination as follows:*

> *"(1) As applied to ground water, "contamination" or "pollution" means exceeding water quality standards, the concentrations of which are attributable to the solid waste facility, as:*
>
> *(a) Specified in CMR 231 - Primary Drinking Water Standards, promulgated pursuant to 22 MRSA section 2611; or*
>
> *(b) Demonstrated by a statistically significant change in measured parameters which indicates deterioration of water quality determined through assessment monitoring."*

Within this context the water quality impacts observed in the vicinity of the leachate pond are not defined as contamination. However, the DEP expects that once an adequate number of samples are collected from established monitoring locations that statistical comparisons will support this definition.

As a result of additional investigation performed in 2003 and 2004 elevated parameter concentrations were detected in the leachate pond underdrain and at DP-4 located near the southwest corner of the leachate pond. Investigation results also indicated that groundwater quality between the landfill liner and leachate pond was not impacted. Based on this evidence the landfill liner is not considered to be a source of downgradient degraded water quality.

The full extent of this water quality impact is not known at this time. However, the applicant has presented the DEP with a proposal for additional investigation to evaluate the nature, extent, and source of this water quality impact.

Comment: What is the definition of an "unreasonable threat". The MDEP must have substantial evidence to support a finding that the facility does not pose an unreasonable threat to the quality of a bedrock aquifer before a license can be issued.

Response: *Chapter 401 Section 2.G provides the following definition:*

> *"The potential for an unreasonable threat to a sensitive receptor is an arrival time of less than 6 years from the landfill or less than 3 years from leachate storage structures and pump stations of a concentration of a pollutant which would result in contamination of that sensitive receptor."*

The MDEP found that the application contains sufficient evidence to meet this criterion.

Comment: What procedures will be used to decontaminate water, soil, ice, etc.? When will decontamination be complete? Is retesting of the site required after it has been decontaminated? Who will take responsibility for the cleanup?

Response: *The facility operator is responsible for all activities associated with the correction of an environmental impact resulting from their facility. The MDEP is responsible for oversight of these activities.*

Identification and correction of the source of the water quality impacts is the first issue that must be accomplished at the site. Remediation of a contaminant source may, in some instances, require removal of soil and/or groundwater. However, without knowledge of the nature of the source it is difficult to predict the remediation that will be required.

Corrective actions for water quality impacts at facilities in Maine have included installation of trenches to intercept and remove contaminated

groundwater and installation of extraction wells to remove groundwater and control groundwater flow gradients. The MDEP does not expect that these types of engineered corrective actions would impact the wetland downgradient of the landfill.

In some cases, once the source of contamination has been removed, residual contamination in soils and groundwater is allowed to naturally attenuate if impacts to sensitive receptors are not predicted. Monitoring is required throughout and after the implementation of a corrective action. Sampling locations in impacted areas are monitored under Assessment requirements until the MDEP decides a successful corrective action has been accomplished. Assessment monitoring requirements include monitoring of additional parameters and possibly the addition of monitoring locations. Once a successful corrective action has been complete the monitoring program is reduced to the less stringent Detection monitoring requirements.

Comment: What were the results of dioxin testing performed by Woodard & Curran in 2003?

Response: *Results from the Woodard & Curran report did not indicate the presence of dioxin. Dioxin is a large organic molecule that is insoluble in water. Therefore, the presence and/or migration of dioxin in groundwater is not expected.*

Comment: Newly drilled monitoring wells take several weeks to equilibrate. How was it possible to collect groundwater samples from the monitoring wells installed as part of the 2003/2004 hydrogeologic investigation.

Response: *Drilling test borings for the installation of monitoring wells disturbs the soil material in which the wells are constructed. Water samples collected from these wells are typically turbid due to a high level of suspended solids (i.e. silt and clay particles) for several weeks after the wells are installed. The first samples collected from the new wells in the vicinity of the leachate pond at WOTL were turbid. The wells were then slowly purged using low-flow sampling techniques for an extended period until the groundwater turbidity was lowered to acceptable levels. A second set of samples were than collected from the wells and submitted for laboratory analysis. Results from these analyses were used in assessing water quality in the vicinity of the leachate pond.*

Comment: How can the MDEP issue a license for this amendment application when contamination has been documented at the site?

Response: *Contamination has not been documented at the WOTL. The water quality changes in the groundwater monitoring well network for the WOTL do not meet the definition of contamination in O6-096 CMR Chapter 400.*

Comment: Does the landfill pose a threat to Sunkhaze National Wildlife Refuge or Sunkhaze Stream?

Response: *No. Impacts to surface water from this site have not been detected, and are not expected based on the time of travel to the sensitive receptor for the site – the stream west of the landfill. In addition, computer modeling and the corroborative field data indicate groundwater from this site would not travel to the Sunkhaze area.*

Comment: The western boundary of the landfill is less than 200 feet from a freshwater wetland that may be contaminated by the landfill, the leachate pond or a spill. The MDEP must have a current and complete understanding of the groundwater regime under the site.

Response: *The MDEP does have a current and complete understanding of the groundwater regime under the site. Several years of ground and surface water monitoring data exist for the site. The time of travel and contaminant transport analysis work included in the amendment application confirm the conditions found during the original licensing of the WOTL.*

8. WATER QUALITY MONITORING

Comment: Is the leachate tested for dioxin?

Response: *Leachate is not tested for dioxin unless it is a license requirement for the receiving wastewater treatment facility. It is not required by the Old Town Mill's wastewater treatment plant.*

Comment: The proposal contains little or no information regarding the types of statistical tests used to assess water quality or the parameters used to measure water quality.

Response: *The requirements for statistical analysis of environmental data are found in 06-096 CMR Chapter 405 Section 3.B and Appendix C. Statistical analysis must conform to the July 1992 Addendum to Interim final Guidance for Statistical Analysis of Ground Water Monitoring at RCRA Facilities. Specific statistical tests are not required, however, typically Mann-Kendall Trend analysis is used to evaluate changes in water quality at individual wells and the Kruskal-Wallis test is used to statistically compare downgradient water quality to upgradient monitoring locations.*

Requirements for environmental monitoring parameters are also found in 06-096 CMR Chapter 405. Three separate monitoring levels are required under the Regulations.

- *Characterization monitoring, required for newly installed monitoring locations, consists of 45 parameters measurements per sample including cations, anions, indicator parameters, trace metals, and volatile organic compounds.*
- *Detection monitoring is implemented after Characterization monitoring is completed. Detection monitoring consists of 26 parameter measurements per sample including cations, anions, indicator parameters, and any parameters detected during Characterization monitoring. This monitoring level is maintained as long as water quality remains comparable to upgradient water quality.*
- *Assessment monitoring is implemented if there is evidence of deteriorating water quality attributable to the solid waste facility. Assessment monitoring consists of 57 parameters per sample including cations, anions, trace metals, volatile organic compounds, semi-volatile organic compounds, and pesticides. If contamination is confirmed by assessment monitoring results, assessment monitoring levels are required to continue until the MDEP concurs that a successful corrective action has been demonstrated to address the cause of the deterioration in water quality. In addition, additional monitoring locations may be required to evaluate the nature and extent of the water quality impact.*

Comment: What is a matrix spike? MW-207 has had over 57 matrix spikes which exceed the MCL for a number of parameters.

Response: *A matrix spike is a quality assurance/quality control (QA/QC) procedure used by analytical laboratories. Matrix spikes are prepared after the sample has been submitted to the laboratory. At the laboratory the water sample is spiked with a known concentration of a target parameter (e.g. lead). The spiked sample is analyzed to determine how much of the target parameter is detected. This information is used to evaluate the ability of the analytical method to detect a given parameter in a particular water chemistry.*

Results reported for matrix spikes do not represent the water quality at the location the sample is collected. Therefore, matrix spikes are not compared to regulatory thresholds like MCLs.

Comment: What guarantee do local residents have that water quality will be truly monitored? What types of changes would not be attributed to truck traffic and construction?

Response: *Each licensed solid waste facility in the state must meet the monitoring requirements of 06-096 CMR Chapter 405. Chapter 405 provides specific monitoring requirements on: how and where samples are collected; preservation and transportation of samples; sampling frequency; analytical methods; statistical analysis and reporting of results. The MDEP provides oversight for the environmental monitoring program and reviews information and sampling results submitted under the requirements.*

Recent activities at the WOTL site demonstrates how the monitoring program can lead to further investigation of environmental impacts. As part of the license amendment application the MDEP evaluated water quality results from the WOTL environmental monitoring program. This evaluation identified subtle but measurable changes in water quality at several locations. In addition, the MDEP reviewed a baseline environmental study performed by Woodard & Curran for GP. The MDEP identified several possible sources which may have contributed to changes in water quality including the existing landfill. As a result the MDEP required an additional investigation which included the installation of seven new groundwater monitoring wells upgradient and downgradient of the leachate pond. The results of this additional investigation demonstrated that there is no evidence that the landfill liner is leaking. However, there is evidence of water quality degradation downgradient of the leachate pond and in the leachate pond underdrain. The source of this degradation has yet to be determined. The MDEP is currently involved with the development of additional investigations to identify contributing source(s) to the degraded water quality associated with the leachate pond underdrain and groundwater downgradient of the leachate pond. All identified sources must be corrected.

Comment: Will baseline sampling be done of water supply wells in the vicinity of the landfill?

Response: *Yes, baseline sampling will be done of water supply wells in the vicinity of the landfill. The number of wells to be sampled, their location and the parameters to be measured will be outlined in the environmental monitoring plan for the landfill. The plan will be developed after the amendment application is approved by the MDEP.*

Comment: Water well samples were collected by citizens. Results from these samples indicated one exceedance of the MCL for arsenic and varying levels of sodium, chloride, lead, arsenic, hardness, and iron.

Response: *The parameters mentioned all occur naturally in groundwater. The presence and concentration of these parameters may be related to the aquifer matrix (i.e. type of bedrock) and other naturally occurring geochemical factors. Other influences, such as road salting, failed septic systems, and other activities within the area of the wells may also effect water quality. In addition, residential pumping may introduce lead and copper into drinking water.*

At this time the MDEP is not aware of any information that would indicate the landfill has effected water quality in drinking water supply wells.

Comment: Leachate polluted groundwater plumes can readily pass between monitoring wells at the point of compliance and not be detected. What are the depths and spacing of the groundwater monitoring wells currently at the site? How big would a leak need to be in order to be detected at a monitoring well?

Response: *Horizontal spacing between existing monitoring wells in the area downgradient of the active landfill (MW-223A&B, MW-227, MW-301, and MW-204) range from approximately 50 to 400 feet. Three of the wells, MW-233B, MW-207, and MW-204, are installed in the shallow overburden at a depth of approximately 20 feet. MW-233A is installed in the shallow bedrock at a depth of 32 feet. MW-301 is installed in the deep bedrock at a depth of 182 feet.*

The dimensions of a groundwater leachate plume are dependent on the size of the source (e.g. breach in landfill liner), the velocity of groundwater flow, and the aquifer matrix. Generally, contaminant plumes in aquifers made up of highly permeable materials, like well-sorted sands, are narrow and could more easily go undetected. In less permeable aquifers, such as the glacial till found at the WOTL site, slower moving groundwater and finer grained aquifer matrix materials (soils) allow for greater dispersion of contaminants. In this situation releases from the landfill would result in a contaminant plume of greater lateral extent which would more likely be intercepted by a monitoring location.

The size of a leak necessary for detection by the current monitoring well configuration is dependent on the location of the leak. Obviously a small leak located directly upgradient of a well would be detected. However, there may be areas of the liner where, if a small enough leak

occurred, groundwater flow direction and dispersion effects would allow migration of water quality impacts between monitoring wells without detection.

Recent reviews of monitoring data by the MDEP demonstrated that the WOTLF monitoring network was effective at detecting degraded groundwater quality.

Comment: What steps will be taken to assure that the landfill is maintained and monitored indefinitely?

Response: *Requirements for post closure maintenance and monitoring of closed landfills are included in 06-096 CMR Chapter 401, Section 6. The following language was taken directly from the rule:*

> *"The licensee shall submit a post-closure monitoring and maintenance plan to the MDEP as part of the closure plan required in Section 5. The plan must cover a period of at least 30 years following closure unless extended by the MDEP due to identified threats to public health, safety, or the environment."*

Comment: What actions will be taken to remediate leaks once they occur.

Response: *Once degraded water quality has been identified and attributed to the facility through assessment monitoring, the owner/operator is required to submit a corrective action plan to the MDEP. The requirements of the corrective action are included in 06-096 CMR Chapter 405, Section 2.D. The facility must promptly address immediate threats to human health and/or the environment. Long-term corrective action plans must be developed in cooperation with the MDEP and implemented in a timely manner. The MDEP determines when a corrective action has been successfully completed.*

Comment: Groundwater monitoring at the site should include geophysical techniques including annual electromagnetic survey to detect groundwater contamination that might not be detected by monitoring wells.

Response: *The MDEP has used terrain conductivity surveys in the past to successfully detect shallow groundwater contaminant plumes. The Regulations do not require this type of monitoring to be performed and, at this point, it has not been proposed at the site.*

Comment: Groundwater should be sampled and tested from shallow backhoe excavations instead of monitoring wells. Installation of monitoring

wells can create a pathway that allows the migration of contamination from shallow to deeper depth in the aquifer.

Response: *The MDEP has specific requirements for the construction of monitoring wells included in 06-CMR Chapter 405, Installation of monitoring wells in excavations or the collection of groundwater samples from excavations does not meet these requirements. The well construction requirements in Chapter 405 were developed with the intent that water samples be representative of groundwater conditions. Therefore, construction of monitoring wells should involve the least amount of disturbance of aquifer material (i.e. soils and bedrock) as possible. Excavating soils with a backhoe creates considerable disturbance of soils resulting in groundwater samples that typically contain extremely high concentration of suspended solids. As a result, analytical results from these samples are not representative of the groundwater quality at that location.*

The MDEP recognizes the potential for monitoring wells acting as a conduit for the migration of contamination. To control this potential Chapter 405 Section 5 requires wells be constructed so the screened interval of the well is isolated with bentonite clay seals. In addition the borehole annulus above the bentonite seal must be grouted with cement/bentonite. Well screens must not be screened across hydrogeologic boundaries.

Comment: The unnamed tributary has been identified as a sensitive receptor. Additional monitoring of the stream should be performed. This could include weekly monitoring, automated collection of samples, and/or insitu measurement devices.

Response: *06-096 CMR Chapter 405 requires that surface water locations are monitored three times annually in the spring, summer, and fall. At this time no additional monitoring has been proposed for the unnamed tributary.*

Groundwater discharge to the stream is extremely slow due to relatively impermeable soils. The only known overland flow discharge to the wetland associated with the stream was the leachate pond underdrain, which is now pumped back to the leachate pond. Therefore, sudden changes in stream water quality due to runoff from the landfill site are not expected.

Comment: What protection is there from surface water runoff and leaks to the nearby streams?

Response: *Surface water monitoring has been performed at three locations along the unnamed tributary to Pushaw Stream, located south and*

downgradient of the site, since 1990. The sampling locations include one sampling station located upgradient of the landfill (SW-2) and two sampling stations located downgradient of the landfill (SW-1, and SW-3). These locations will be included in future monitoring at the site. To date there has been no evidence of degraded water quality at any of these surface water locations.

Comment: Spills from the landfill will enter Pushaw Stream and the Penobscot River. Impermeable glacial tills allow quick runoff overfilling detention ponds.

Response: *The detention ponds are designed to intercept clean storm water runoff that has not come in contact with waste materials. The MDEP solid waste engineering staff have reviewed the design of the ponds to ensure they are capable of handling runoff from storm events.*

The potential for spills from the site effecting either Pushaw Stream or Penobscot River is highly unlikely. The drainage divide in which the landfill is located is over 12 thousand acres. The entire watershed for Pushaw Stream is many times this area. Surface water in Pushaw stream is derived from throughout the watershed. Any release from the landfill would represent a very small portion of water entering Pushaw Stream. Surface water monitoring will continue to be required along the unnamed tributary to Pushaw Stream downgradient of the landfill. Any changes in water quality in the stream will require investigation and, if necessary, corrective actions at the landfill.

Comment: Use of biological indicators for wetland and surface water quality monitoring. This technology is promoted on the MDEP website but not proposed for this project. WOTL would be a perfect showcase for this technology.

Response: *The monitoring requirements included in 06-096 CMR Chapter 405 do not have a provision for this type of monitoring. Environmental monitoring associated with solid waste facilities is primarily focused on groundwater and surface water quality.*

Comment: Overflow of the unnamed tributary downgradient of the landfill during spring runoff will allow migration of contamination to the west of the stream.

Response: *The unnamed tributary and associated wetland is a groundwater discharge area. Increased runoff due to snow melt and rainfall during the spring will also increase the upward hydraulic gradient from the east and west side of the stream increasing groundwater discharge into the stream. It is unlikely that surface water in the stream would*

reenter the groundwater system, particularly when such high runoff is occurring.

Comment: Were samples collected from the aquifer, marsh, bog, vernal pools, vegetation, or soil? Where any contaminants found?

Response: *Samples of groundwater and surface water have been collected at the site since 1990. Results from long-term groundwater monitoring indicated subtle changes in water quality in the vicinity of the leachate pond. Additional investigation revealed substantially degraded water quality in the area downgradient of the leachate pond and in the leachate pond underdrain.*

Surface water samples have been collected from the unknown tributary downgradient of the site and from wetlands located adjacent to the site access road since 1990. Results from this monitoring have not shown any indication of water quality impact.

Sampling of media other than groundwater, surface water, or leachate (i.e. vegetation, soil), and at locations other than those identified in the current site monitoring plan, has not occurred and is not required.

Comment: Can outside parties participate in environmental monitoring at the landfill?

Response: *Decisions concerning site access for outside party participation in environmental sampling must be approved by the site owner/operator. It is MDEP's understanding that Casella and the SPO have liability concerns associated with allowing outside parties access to the site.*

The MDEP will oversee the sampling of monitoring wells and surface water at the Landfill. The operator must take samples three times a year. MDEP will receive split samples once a year which will be sent to an independent laboratory for analysis. The sampling will be done according to standard practice.

The results of all monitoring tests will be made available to the public as soon as they are received by the MDEP.

Comment: Will the State pay for the testing of all water wells within a 3 mile radius of the landfill? Where will people acquire their drinking water if the aquifer is contaminated by the landfill?

Response: *The State does not plan to pay for the testing of all wells within 3 miles of the landfill. The State will likely periodically sample some household wells in the vicinity of the WOTL, but no decisions on which wells will be sampled has been made. The landfill's siting and design*

make it highly unlikely that any household wells will be affected by this landfill. If the landfill was determined to be the source of contamination in a drinking water well, the Department would require that Casella supply potable water for the user of that well.

Comment: There should be independent third party testing of water.

Response: *Although the consultant who samples the wells is paid by the owner/operator, the wells are sampled in accordance with a plan approved by the MDEP, and the consultant's reputation and professional certifications/licenses provide assurance that the samples will be properly handled and reported. Using chain of custody forms, the samples are sent to a laboratory certified by the State for analysis of the samples. The sample results are provided to the MDEP for inclusion in the database and review by staff. The system works; the MDEP has had very few instances when data appeared questionable, and has pursued enforcement action and/or referral to the professions certification board in those cases.*

9. LANDFILL DESIGN

Comment: Commentors expressed concern regarding the design of the liner and leachate collection systems under the weight of the waste with the vertical increase. One commentor stated that the 8-mil plastic being proposed won't work.

Response: : *The geomembrane used in the liner system will be an 80-mil (0.08 inch) thick high density polyethylene product. It will overlie a geosynthetic clay liner (GCL) and one foot of recompacted clay. An additional foot of recompacted clay, meeting the same specifications as the clay component of the liner system, will be placed beneath the liner system as a travel time layer. The liner materials will not be damaged by high compressive loads.*

The leachate collection and removal system includes two components that can potentially be compromised by high compressive loading: the drainage geocomposite and the collection pipes. Calculations have been completed demonstrating that both products will maintain their performance and integrity under the proposed loading conditions. Based on MDEP recommendations, NEWSME Operations has agreed to increase the strength of some of the leachate collection and leak detection piping under deeper areas of fill to account for potentially higher than anticipated waste densities. Further, the drainage geocomposite delivered to the job site will be tested in the laboratory under normal loads that will simulate the full depth of fill.

Comment: Comments were received regarding the general level of design for the proposed new landfill cells and supporting infrastructure. The commentors requested clarification regarding the general level of design being proposed, specifically whether the level of design was only to minimum standards, or if state-of-the-art technologies are being incorporated into the design.

Response: *The proposed landfill design utilizes a combination of meeting the regulatory standards and state-of-the-art technologies. Some of the state-of-the-art technologies, or other measures that exceed the standards, that have been included are discussed below.*

1. *The leachate collection and removal system is designed with redundant liquid collection and transmittal capabilities. The primary collection and transmission medium is a drainage geocomposite placed directly on the geomembrane. The specified geocomposite was selected to collect and transmit all leachate generated during peak flow conditions without the thickness (head) of the leachate on the liner exceeding the thickness of the medium (approximately one-quarter of an inch). It is overlain with a twelve inch layer of highly permeable granular soil with embedded collection and transmittal pipes. Further, pressure transducers will be installed within each cell to monitor for any head build-up on the liner.*

2. *Instead of gravity pipe lines penetrating through the landfill liner, leachate will be directed to sumps where it will be pumped over the liner and perimeter berm to the storage structure. Our experience is that liner penetrations for leachate removal have historically been the most common source of leachate leakage from landfill liners.*

3. *After the installation of the leachate collection system, an electric leak location survey of the geomembrane liner will be conducted. The electric leak location survey is performed by impressing a voltage across the liner, then scanning the surface for passing current. Because the geomembrane is an insulator, current will not pass unless there is a hole through it. Damage during placement of the overburden of the leachate collection system has long been suspected as being a primary contributor to geomembrane liner damage. The electric leak location survey has proven highly successful in other parts of the country and is designed to detect damage caused during overburden placement. This will be the first instance of its use*

at a Maine landfill as part of a construction quality assurance program during landfill liner installation.

4. *Landfill gas will be actively extracted using a collection network, installed as operations progress, connected to a blower and flare. Active gas extraction systems have proven to be successful at reducing the potential for odors associated with landfill gas. In the future, the gas may be used to generate electricity.*

This discussion is not intended to be all-inclusive.

Comment: Commentors requested clarification on the definition of a "leak", and what constitutes "acceptable" leakage from a landfill. Specific clarification was requested regarding the Action Leakage Rate of 20 gallons per acre per day listed in the original landfill application.

Response: *All landfill liner systems are designed with a site-specific design leakage rate. Design leakage rates are utilized in the contaminant transport analysis and in response action plans for leak detection systems. The design leakage rate is an estimate of the amount of leakage expected through the liner system within the solid waste boundary, plus an additional amount of leakage from waste handling areas, to account for factors such as changes in long-term performance of engineered products, operational considerations, and site-specific features. The design leakage rate is a required input parameter for the contaminant transport analysis required under 06-096 CMR Chapter 401.*

The action leakage for the existing leachate storage pond is 20 gallons per acre per day.

Reviewing data for Maine landfills that have a leak detection system (and hence provide a direct means of measuring flow through a liner system), the average flow through a composite landfill liner system in Maine is 10 gallons per acre per day (gpad). Based on a review of national data by Giroud and Bonaparte during the 1990's, the national average appears to be 20 gpad. Although there are a number of factors involved, the high level of attention to construction quality assurance (CQA) on projects in Maine is likely a contributing factor to the positive results. Furthermore, with the use of the electric leak location survey in addition to traditional CQA measures proposed to be used on this project, we expect the liner leakage will be less than our current Maine average.

Comment: A commentor requested information on the time it takes for waste to decompose in a dry tomb landfill versus the amount of time for decomposition in a bioreactor landfill. It was further stated that the MDEP should mandate the use of bioreactor technology at this facility since it has been shown to be more effective at protecting the environment.

Response: *It is known that bioreactor landfills decompose waste at an accelerated rate compared to dry tomb landfills. It is not known at this time what the difference in decomposition rates is, however it is believed to be significant.*

Bioreactor landfill technology has not advanced to the point of being a routinely accepted practice. The United States Environmental Protection Agency (USEPA) promulgated a final Research, Development, and Demonstration Rule (RD&D) on March 15, 2004, and published the rule in the Federal Register on March 22, 2004. USEPA is attempting to gather information on the use of the technology.

Comment: A commentor requested information regarding the warranty on a landfill liner, the cost of replacement of a liner, and the procedures that would be used to replace a liner if a leak was detected.

Response: : *Geomembrane warrantees generally cover a period of about 20 years. That time frame, however, is not indicative of the expected service life of a geomembrane in a buried environment. Based on a variety of accelerated aging tests, properly installed material will last on the order of several hundreds of years*[1]*. Replacement of an entire liner after the placement of a significant amount of waste has been placed is unrealistic since it would entail excavating and relocating the entire waste mass. The actions that would be taken if the liner were found to be leaking would be dependent on the nature of the leak. Assuming a leak is significant, the likely first step would be to permanently close the affected portion(s) of the landfill with a composite (geosynthetic and soil) cover to cut off recharge. Other technologies could also be implemented along the downgradient side of the landfill if necessary.*

Comment: A commentor stated that many chemicals can degrade, or make brittle, the HDPE liner material. The commentor suggested testing be done after each year to determine if degradation has occurred so that subsequent landfill cells can utilize better liner technology if necessary.

[1] *Designing with Geosynthetics* Fourth Edition, Robert M. Koerner, Prentice-Hall, Inc., 1998, pp. 453-461

Response: *Certain chemicals can act as oxidizing or plasticizing agents when in contact with HDPE in sufficient concentrations. Plasticizers can cause some decrease in the physical properties of HDPE. It is the oxidizers, primarily acids such as nitric acid, sulfuric acid, or hydrogen peroxide, that cause the liner to become brittle. To do so however they would need to be present in concentrations far greater than would be expected in landfill leachate. The leachate at the West Old Town landfill is not expected to be significantly different than that at other similar mixed waste landfills where HDPE geomembranes are also used.*

HDPE geomembranes have been extensively tested for compatibility with a wide variety of landfill leachates, most commonly using immersion tests such as EPA Method 9090. It has been demonstrated that HDPE is the most chemically resistant geomembrane material currently available.

Removing a sample of the geomembrane that has been exposed to leachate each year for immersion testing would be a difficult undertaking. In order to obtain a representative sample, it would involve excavating into the waste and through the leachate collection system, removing the sample, and repairing and restoring the area. It would also risk damaging other components of the liner and leachate collection system.

Comment: A commentor recommended that the applicant install a double liner system to provide an extra level of protection to groundwater and surface water surrounding the landfill area. This is particularly important since the landfill base is sitting right on top of the groundwater table.

Response: *It is correct that a double liner system would provide an extra level of protection to groundwater in that it would allow for the installation of a fully effective leak detection system. Double liner systems, however, are not required in Maine for landfill facilities that meet siting criteria and have a travel time of at least six years to the nearest sensitive receptor.*

Comment: A commentor requested clarification regarding the length of time it would take for contamination to reach the underdrain system and be detected in the event that only the 80-mil HDPE component of the liner system were compromised. At a public session, the applicant's design engineer stated that this time would be approximately 3-4 years, whereas the commentor's calculations indicate that it would

take approximately 27.5 years to be detected. The commentor further stated that if it is the latter, this time is too long to be useful.

Response: *The travel time through the liner is a function of the hydraulic head build-up above it. By our calculations the travel time ranges from 21.2 years with 0.25 inches of head (the design condition with all liquid contained within the drainage geocomposite) to 6.5 years assuming 12 inches of head (the maximum allowable head build-up). The calculation assumes the geosynthetic clay liner (GCL) and the barrier soil remain intact.*

Under 06-096 CMR Chapter 401, travel time calculations associated with liner leakage begin at the bottom of the liner system. In this case, the calculations begin at the mid-point of the two foot thick clay layer underlying the GCL. Using the same leachate head numbers outlined above, the travel time to the top of the underdrain layer would range from 9.7 years to 1.3 years respectively. The actual travel time for any leakage to be detected is different from, and greater than, the travel time from the base of the liner to the underdrain layer.

It should be pointed out that the intent of the underdrain is not to act as a leak detection system, and it will not entirely function as one since leakage can pass down through it into the underlying layers.

Comment: Increasing the height of the landfill will increase the hydraulic conductivity of the landfill since depth is a variable of its calculation. Because the pile is not a predictable and homogeneous soil, the capacity of the pile to hold a certain amount of water following a storm would be highly variable. The amount of precipitation passing through the pile as leachate would be variable. Increasing the height of the pile will change the internal hydraulics of the pile and may likely increase the hydraulic head during stormy periods.

Response: *As the height of the landfill increases the effect of additional surcharge loading above the waste mass would likely cause some decrease in the hydraulic conductivity due to a reduction in voids. The HELP Model water balance for the landfill was completed using default parameters provided in the model for municipal solid waste since they are representative of the majority of waste types anticipated for disposal. Input parameters include porosity, field capacity, wilting point, and effective saturated hydraulic conductivity. The default parameters take into account the non-homogeneous nature of the waste and the authors of the HELP Model have verified them at field scale.*

NEWSME has agreed to include provisions during initial cell operations to allow leachate collected from higher elevations to be

conveyed directly to the leachate collection system. As the landfill height increases the appropriate connections will be made and activated.

The leachate collection and removal system is designed with redundant liquid collection and transmittal capabilities to limit the potential for leachate head build-up on the liner system. Further, pressure transducers will be installed within each cell to monitor the performance of the leachate collection system. The performance of the leachate collection system must be evaluated each year with the results of the evaluation included in the facility's Annual Report to the MDEP.

Comment: What are the differences between the existing landfill liner and the proposed liner? What improvements have there been in liner technology since the original license approval in 1993?

Response: *Both liner systems include an HDPE geomembrane overlying a GCL and a recompacted soil barrier layer. The soil barrier layer component of the 1993 liner system has two feet of recompacted glacial till with a design maximum hydraulic conductivity of $3x10^{-6}$ cm/sec. The soil barrier layer component of the proposed liner system has one foot of recompacted clay with a specified maximum hydraulic conductivity of $1x10^{-7}$ cm/sec. Although not part of the liner system, there is an additional one foot layer of recompacted clay with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec directly underneath the soil barrier layer for the liner system.*

The most significant improvements in liner technology have been in the areas of quality assurance and quality control (QA/QC). Manufacturers are producing more consistent products, and field installation and monitoring techniques have improved. As mentioned previously, an innovative electric leak location survey is being proposed for this project. The main improvements to the products themselves involve enhanced interface strength properties through improved texturing of geomembranes and needle punching of GCLs.

Comment: The applicant stated that the site has up to 75 feet of native till soil prior to development, but that some of the till will be excavated in order to reach base grades. How much till will remain below base grades?

Response: *The site does have up to 75 feet of native till beneath the proposed landfill footprint at this time. A minimum of ten feet of till will remain below base grade following development.*

Comment: Will the leachate generation rate be higher with the increased amount of waste?

Response: *The leachate generation rate will not increase simply due to increasing the amount of waste received. Instead, the amount of leachate generated at the landfill will vary over time based on the amount of open (active) landfilling area, the season of the year, waste properties, and the amount of precipitation. In order to estimate a leachate generation rate, a landfill water balance was completed using the HELP model that includes waste properties such as moisture retention and storage over time.*

Comment: Does above average precipitation cause any problems with the landfill design?

Response: *Without any context for the definition of "above-average" as used by the commentor, it is not possible to directly answer this question. However, it is accurate to state that the landfill design standards of 06-096 CMR Chapter 401 requires analysis of conservatively wet conditions throughout the landfill's operating life. Similarly, the landfill must demonstrate compliance with these regulations as part of the Annual Report submitted by the facility to the MDEP.*

06-096 CMR Chapter 401 requires that the leachate generation estimate be based on a minimum 15 year climatic database that includes the precipitation from a 25-year, 24-hour storm event occurring during a wet period in the analysis. Run-on/run-off control systems and consolidation water expelled from the waste must be considered in the analysis. The design of the leachate collection system must demonstrate that the leachate head on the primary liner system does not exceed the thickness of the drainage media or 12 inches, whichever is less. In addition, the leachate storage capacity must consider leachate management limitations relating to transportation and disposal, recirculation, and/or pretreatment as applicable. Additional storage volume equal to two feet of freeboard or 25% of the design storage capacity, whichever is greater, must be provided. The design for this facility meets this standard.

The Regulations also require that the solid waste facility be designed to control stormwater falling on the site during a storm of an intensity up to and including a 25-year, 24-hour storm. The design for this facility meets this standard.

As part of the design of facility components, a factor-of-safety is included for the components. Using a factor-of-safety for the facility components adds a level of conservatism to the design. Although this

comment cannot be answered quantitatively as presented, examples such as the ones noted above indicate that the facility is designed with adequate conservatism to effectively function based on the required precipitation event size, and likely would function very effectively during higher precipitation events.

Comment: Commentors requested clarification regarding how far the outer edge of the perimeter berm will extend beyond the currently licensed landfill footprint. Similarly, clarification was requested ensuring that the limit of waste placement against the inside edge of the perimeter berm does not extend beyond the currently licensed landfill footprint.

Response: *The toe of the soil perimeter berm that will run along the southeast, east, north, and northwest sides of the landfill will extend approximately 27 to 67 feet beyond the toe of the currently licensed perimeter berm, depending on the location. The toe of the mechanically stabilized earthen (MSE) perimeter berm that will run along the southeast side of the landfill will extend approximately 10 to 17 feet beyond the toe of the currently licensed perimeter berm, again depending on location. The limit of waste placement is unchanged from the currently licensed footprint.*

Comment: A commentor requested information regarding the amount of leachate that will need to be treated each day at the G-P wastewater treatment plant.

Response: *The amount of leachate that will be generated at the landfill will vary over time depending on the amount of open (active) landfilling area, the season of the year, and the amount of precipitation. During the peak design month over a 15 year simulation period 3,888,570 gallons are expected based on a HELP Model[2] water balance. This averages out to about 130,000 gallons per day during the month. The amount treated on any given day, however, will vary depending on trucking schedules.*

Comment: A commentor requested clarification regarding the long-term integrity of the leachate collection system. Specifically, concerns were expressed with the growth of micro-organisms in the pipes, chemical precipitation possibly clogging the pipes, and chemical compatibility of the pipes with the leachate. Clarification was requested on whether or not the leachate collection pipes will be inspected and cleaned on an annual basis.

[2] *Hydrologic Evaluation of Landfill Performance* version 3.05a, United States Army Corps. of Engineers, Waterways Experiment Station, June 1996

Response: *The leachate collection and transmission system is designed to be redundant. The primary component is the drainage geocomposite with the granular soil and pipes acting as a secondary component. The drainage geocomposite is designed with a composite reduction, or safety, factor of 8 to account for various potential degradation mechanisms. They include a design factor (2), intrusion (1.5), creep (1.4), biological clogging (1.2), and chemical clogging (1.5). These factors are all in accordance with currently accepted design practice[3]. The leachate collection pipes will be enveloped with a graded filter consisting of six inches of drainage stone and six inches of filter stone. They are all designed with cleanout access and will be inspected and cleaned on an annual basis. Additionally, pressure transducers will be installed in each cell to monitor the performance of the leachate collection system. The performance of the leachate collection system must be evaluated each year, and the results of the evaluation must be included in the Facility's Annual Report to the MDEP.*

Comment: Will the gas flare be visible?
Response: *No.*

Comment: Who's liable for the cost of treating leachate throughout the facility's life and will there ever be a cost or liability for Old Town?
Response: *Casella is liable for the cost of treating the leachate; Old Town will not have to pay or assume liability for the leachate.*

Comment: Can the mill's wastewater treatment plant handle the leachate from the new wastes (quality and quantity)?
Response: *Yes. The quantity of leachate is not expected to change much because a smaller operating area will be used; the quantity of leachate from the landfill will be a very small percentage of the amount of material treated at the treatment plant. The characteristics of the leachate will not change enough to cause any problems at the treatment plant.*

Comment: If there is a leak in the landfill how would it be detected? How long would it take?
Response: *The solid waste regulations require an environmental monitoring program at the facility. Chapter 405 of the solid waste rules documents the requirements associated with site environmental monitoring programs. These requirements include monitoring of groundwater, surface water, leachate, and waste characterization. The environmental monitoring program is required to detect leakage*

[3] *Designing with GRI Standard GC8* Dhani B. Narejo, Ph.D., EIT, and Gregory N Richardson, Ph.D., P.E., Geotechnical Fabrics Report, August 2003

of the landfill. This is done through review of monitoring results for changes in groundwater or surface water quality.

Monitoring locations at the WOTLF will include the landfill underdrain, overburden monitoring wells, bedrock monitoring wells, and surface water monitoring locations. Leaks entering into the landfill underdrain should be detected relatively quickly. Travel times for groundwater in site tills range from approximately 2 to 60 feet per year. Therefore, leaks that migrate through overburden till may not be detected for an extended period of time. Leaks that migrate into the bedrock aquifer would be transported more quickly (up to 2500 feet per year).

The period of time it takes to detect a leak would be dependent on a number of variables including: the location of the leak; the direction of groundwater flow; the hydraulic character of the till; the potential for contamination to enter into the bedrock; and the distance to the nearest monitoring point.

Comment: Where will the leachate trucked from the WOTL go? How is it "treated"?

Response: *As it does currently, the leachate will go to GP's mill wastewater treatment plant. The wastewater treatment plant has both primary (biological) and secondary (chemical) treatment.*

Comment: Can it go to the City of Old Town Wastewater Treatment Plant?

Response: *It cannot go to the City's wastewater treatment plant at this time; the plant would need to be upgraded to handle the additional volume of liquid. The decisions on the City's willingness to take the leachate, who would pay for the upgrades, and the timing of the discussions is an issue between the City and the applicant.*

Comment: Where will it go if the Old Town Mill shuts down?

Response: *It would likely go to the City of Bangor's wastewater treatment plant; it has the capacity and is currently taking the leachate from the Pine Tree Landfill in Hampden.*

Comment: Could mercury enter local waterways if there's a leachate spill?

Response: *It is highly unlikely a detectable quantity of mercury would enter the stream from a leachate spill. The existing leachate pond is a double-lined pond with a leak detection system; the leachate storage tank to be constructed as part of this project has several protective measures in place. There is a spill containment system at the leachate loading station.*

Comment: A commentor wanted to know what the final cover for the landfill will consist of, and what will be put on top of the liner to prevent freezing and thawing from destroying the liner.

Response: *The conceptual final cover system consists of, from top to bottom, a 12" layer of vegetative topsoil, a 12" layer of drainage sand, a drainage geocomposite, a 40-mil linear low density polyethylene geomembrane, and a 24" soil barrier layer. Field scale research completed by the MDEP over the past decade indicates that alternate wetting and drying, and not freezing and thawing, is the primary mechanism driving the hydraulic degradation of barrier soils in landfill cover systems in Maine, and that a geomembrane appears to prevent moisture loss. The geomembrane is not subject to damage from freezing and thawing. We note that Condition #23 of the draft order requires the final cover system design to be "prepared in accordance with the Rules in effect at that time".*

Comment: Are the detention ponds lined?

Response: *The detention ponds do not contain a liner system that meets the standards of 06-096 CMR Chapter 401. Lined detention ponds are not required by the Regulations. The detention ponds are constructed using native soil from the site.*

Comment: Does monitoring occur in the 30 year post-closure period? Leachate collection? Who pays during the post-closure period?

Response: *Yes, monitoring continues in accordance with a monitoring plan approved by the MDEP and undated as necessary. Leachate collection also continues. The owner/operator continues to be responsible for the costs of these activities until the MDEP approves their cessation. If the owner/operator ceases to exist or cannot pay for some other reason, the MDEP draws upon the post-closure care financial assurance package.*

Comment: Can/will the post-closure period be longer than 30 years?

Response: *The post-closure care period is for at least 30 years; that is the period on which the costs of post-closure care are based. At the end of the 30 year period the MDEP will assess a facility's condition and make a decision on the termination of the post-closure period. If needed, the period can be extended. Even if the post closure period was limited to 30 years, that limitation would not eliminate or reduce the longer term liability of the owner/operator of a landfill. The final license makes it clear that the MDEP may extend the post closure period requirements.*

Comment: The Penobscot Nation requests that it be allowed to participate in the review of the post-closure plan for the facility.

Response: *The Penobscot Nation and other interested parties have the ability to comment on the closure plan, which will include a post-closure monitoring and maintenance plan.*

Comment: Will the post-closure fund contain enough money to replace the liner system if necessary?

Response: *No, the fund will not contain a sum that large. It is highly unlikely the best corrective action in the post-closure period would be removal of waste in order to replace the liner system. It is also highly unlikely damage to the liner system would occur after operation of the landfill has ceased; damage to the landfill liner generally occurs during or just after construction.*

10. SETTLEMENT AND STABILITY

Comment: A commentor requested clarification regarding the procedures for handling of sludge during mixing in order to develop the test plot. Clarification was requested on where the sludge will be moved to and how unlined areas will be protected from contamination. Techniques for preventing spills during this removal and mixing procedure should be spelled out in the application.

Response: *The comments are all addressed in a January 16, 2004 memorandum from Richard E. Wardwell, P.E., Ph.D. prepared in response to a MDEP memorandum dated December 18, 2003. A final workplan for the test plot has not been completed to date. All work will be done within lined landfill areas to prevent contamination.*

Comment: The draft license states that it is important to construct and monitor the proposed test plot during the spring thaw period prior to construction of Cell #3. Since it is now too late for this to occur this year, a commentor wanted to know what will be done to ensure stability. Another commentor suggested that the MDEP allow construction of Cell #3, but not allow waste disposal in it until the test plot results are available.

Response: *Completion and monitoring of the proposed test plot through the spring thaw period is important for determining the geotechnical performance of the mixed waste (existing sludge and new waste) at higher sludge contents (20 to 60 percent). Because of this, the excavation and mixing of the existing sludge cannot occur this year but instead will be done prior to the 2005 spring thaw. Any new waste placed during 2004 will only be mixed with new sludges, and the*

sludge content will be limited to 15 percent, an amount that will not present potential waste mass instabilities.

Comment: Comments were received stating that the proposed liner could not withstand the effects of earthquakes that have been felt before in this part of the State.

Response: *A geotechnical evaluation of landfill stability has been completed for the proposed facility. In accordance with 06-096 CMR Chapter 401, the evaluation included an assessment of seismic loading conditions, including seismically induced deformations of the liner system, for both operational and post-closure conditions. For the operational condition, the assessment considered a peak bedrock horizontal acceleration of 0.08g which would occur during an earthquake event having a 90% probability of not being exceeded in a 50 year return period based on a United States Geologic Survey (USGS) publication[4]. The post-closure condition considered a horizontal acceleration of 0.17g, or the earthquake event having 90% probability of not being exceeded during a 250 year return period based on the USGS maps. All seismic factors of safety and seismically induced permanent deformations associated with the aforementioned earthquake events were found to be within acceptable ranges.*

Comment:: A commentor stated that the landfill is located on the end of an esker, which is inherently unstable and not suitable for developing a landfill

Response: : *The landfill is located on the side of a drumlin and not on the end of an esker. Base soils under the entire footprint consist of dense glacial tills that historically have been compressed under glacial ice sheets up to several thousand feet thick. The base soils are thus very stable.*

Comment: A commentor noted that the original stability analysis back in 1993 was wrong regarding the stability of the waste pile, as evidenced by operational problems at the landfill. The commentor further requested clarification as to why anyone should be confident that the stability analysis would be right this time if it wasn't on the first occasion.

Response: : *The adequate geotechnical stability of the proposed waste stream, excluding mixing the existing sludge in with new waste at a higher ratio, has been demonstrated at numerous operating and closed landfills. The geotechnical stability of the waste mass where the existing sludge will be mixed with incoming waste at an increased ratio will be determined by the construction, monitoring, and testing of the proposed test plot.*

[4] *Probabilistic Earthquake Acceleration and Velocity Maps for the United States and Puerto Rico* U.S. Geologic Survey, Misc. Field Studies, Map MF-2120, 1990

Comment: The application states that the operator will remove the existing sludge from Cells 1 and 2 and try to stabilize it. What does it mean to "stabilize" the sludge?

Response: *Stabilizing the sludge means mixing it with new material to create an overall waste mass that has properties, including internal strength, density, and moisture content, adequate to achieve the minimum required factors of safety against internal geotechnical failure. In its simplest form, it means to make the sludge stronger.*

Comment: Commentors expressed concern about the stability of the proposed landfill if it is filled to the elevations proposed. The concern is due to Condition #9 of the draft order, which requires the applicant to submit an updated geotechnical stability analysis and a finalized geotechnical monitoring plan for the landfill that are based on the findings of the test plot program. A commentor recommended limiting the approved final elevation of the landfill to El. 330 instead of El. 390 as proposed to address, in part, stability concerns.

Response: *The geotechnical evaluation was based, in part, on the expected geotechnical properties of the waste mass (density and friction angle). The actual waste mixing ratio that will result during landfill operations is to be determined based on the findings of the proposed test plot program, therefore the geotechnical properties of the waste may differ from the assumptions. Direct testing of the geotechnical properties of the mixed waste will be completed during the test plot program. Condition #9 requires a re-evaluation of geotechnical stability, if necessary, based on the measured properties of the mixed waste. Based on the geotechnical analyses completed to date, the landfill will remain stable at elevation 390.*

11. CONSTRUCTION

Comment: Comments were received stating that oversight needs to occur whenever contractors are moving equipment anywhere near the liner in order to prevent destruction of the liner. Procedures that will be used to protect the liner during sludge removal and mixing should be spelled out in the application. Procedures to be followed whenever the liner is damaged should be spelled out.

Response: *The Technical Specifications for construction include the following requirements:*

> *"Equipment used for placing and compacting the overburden shall not be driven directly on the geomembrane. Such equipment shall*

be closely monitored during placement to ensure that no damage occurs."

"A minimum thickness of 1 ft of cover shall be maintained between the geomembrane and light earth moving equipment. Such equipment shall have a maximum ground pressure of 5 p.s.i.. Equipment shall have no cleats and no turning of any equipment shall be allowed on the initial 1 ft of cover. A minimum thickness of 3 feet of cover shall be maintained between the geomembrane and all rubber-tired earthmoving equipment."

"In all cases, the placement of overburden shall be done with caution and in a manner which is least likely to cause wrinkles in, or damage to, the geomembrane."

The Construction Quality Assurance (CQA) Plan includes the following requirements:

"The Geosynthetic Construction Quality Assurance Agent (CQA) shall measure soil thickness and verify that the required thicknesses are present. The Geosynthetic CQA must also verify that the final thicknesses are consistent with the design and verify that placement of the soil is done in such a manner that geomembrane damage is unlikely."

The Geosynthetic CQA observation of overburden placement is required to be full time.

In a January 16, 2004 memorandum to the MDEP from Richard E. Wardwell, P.E., Ph.D., NEWSME Landfill Operations, LLC (NEWSME) has agreed, in response to MDEP recommendations, to the following procedures:

"An on-site GPS unit will (be) calibrated for use with the "as-built" base grading plan for Cells 1&2 to assure that the existing liner systems are not impacted. In addition, any waste excavation within 2 feet of the top of the leachate collection layer will be directly observed and controlled by a field engineer to assure no impact to the liner system."

Further details for sludge excavation operations will be prepared following completion of, and evaluation of the findings of, the proposed waste mixing test plot program.

Liner repair procedures are outlined in the Technical Specifications and Construction Quality Assurance Plan and vary depending in the nature of the damage.

Comment: A commentor stated that records could not be found in the file documenting that oversight occurred during construction of the existing landfill cells.

Response: *Construction oversight (Construction Quality Assurance) was provided during the construction of Cells 1 and 2. Detailed documentation is provided in the following documents:*

James River Paper Company, Inc. - West Old Town Landfill - Old Town, Maine - Construction Documentation Report; Sevee & Maher Engineers, Inc., Cumberland Center, Maine, January 1997 (five volumes),

Membrane Quality Assurance Report for James River Corporation - West old Town Landfill - Alton, Maine; Atlantic Testing Laboratories, Inc., Manchester, New Hampshire, November 1996,

West Old Town landfill Project - James River Paper Company, Inc. - Old Town, Maine (Record Drawings); Sevee & Maher Engineers, Inc., Cumberland Center, Maine, 1996,

Construction Documentation Report for Cell 2 and Cell 1 Sideslope Closure - Fort James Corporation - Old Town, Maine; Sevee & Maher Engineers, Inc., Cumberland Center, Maine, December 2000 (two volumes), and

West Old Town Landfill Cell 2 Construction - Fort James Corporation - Old Town, Maine (Record Drawings); Sevee & Maher Engineers, Inc., Cumberland Center, Maine, May 3, 2000.

The MDEP also attended weekly meetings, conducted construction oversight, and reviewed and approved Construction Quality Assurance (CQA) and Construction Quality Control (CQC) records for both projects.

Comment: Comments were received asking who oversees construction, and what level of authority is given to this entity overseeing construction.

Response: *Direct responsibility for construction oversight, documentation, and certification lies with the Construction Quality Assurance Agent*

(CQA) and the Geosynthetics Construction Quality Assurance Agent (GCQA). Their responsibilities and minimum qualification requirements are outlined in the Construction Quality Assurance Plan. Both agents are required to be separate from the owner/operator and contractor. The term separate is defined in 06-096 CMR Chapter 401 as follows:

> *"separate from the owner/operator means CQA personnel not in the direct employment of the owner/operator. Direct employment of the owner/operator does not include CQA personnel employed by a company under a contractual relationship with the owner/operator, provided that the CQA personnel are employed by a company that:*
>
> *(a) offers and performs quality assurance services for other companies not affiliated with the owner/operator; and*
>
> *(b) has a management structure that exists and operates separately from the owner/operator such that the CQA personnel are not directly compensated by, and are completely free of any direct reporting obligation to, the owner/operator."*

"separate from the contractor means CQA personnel not in the direct employment of the contractor. Separate from the contractor also means CQA personnel not employed by a company under a contractual relationship with the contractor to perform services or provide materials unless the CQA personnel are employed by a company that:

> *(a) offers and performs quality assurance services for other companies not affiliated with the contractor, and;*
>
> *(b) has a management structure that exists and operates separately from the contractor such that the CQA personnel are not directly compensated by, and are completely free of any direct reporting obligation to, the contractor."*

In addition, the MDEP will provide periodic monitoring of both the CQA and the GCQA. The CQA, GCQA, and MDEP each have the authority to accept, reject, or suspend the work if conditions warrant.

12. OPERATIONS

Comment: Will local citizens or the Penobscot Nation be allowed to visit the WOTL during operation to see if it's being properly operated?

Response: *Casella will not allow access to the site without SPO's written permission, which would include an exclusion from liability. Casella has agreed to permit the Penobscot Nation to accompany MDEP for onsite well monitoring.*

Comment: How will trucks be sealed to prevent waste escape/leakage? What is the penalty if any escapes?

Response: *All truck trailers delivering waste to the WOTL will be covered. Truck trailers and waste containers (such as dumpsters) are not water-tight, and on occasion a small amount of liquid can escape. However, the wastes proposed for WOTL do not typically contain sufficient liquid to cause leakage. The Maine State Police and local police departments enforce traffic laws and regulations; penalties would be assessed by police units and/or the court system.*

Comment: How will the MDEP monitor the facility and its operation throughout operation and the post-closure period?

Response: *The MDEP will conduct both formal site inspections and informal site visits of the facility throughout its operation. Staff closely monitor any construction activities. Staff will review the annual reports, and the results from water quality monitoring, gas monitoring, geotechnical monitoring; if any problems are noted, the operator will be contacted. Staff will also provide oversight of the facility during the post-closure period, and review the monitoring reports required to be submitted during the post-closure period.*

Comment: Incinerator ash contains dioxin, lead and other heavy metals; it should not be allowed to be used as daily or final cover on the landfill. It can be transported by vectors.

Response: *06-096 CMR Chapter 401 requires the minimization of vectors through operational techniques approved by the MDEP. The types of daily cover that will be used at this landfill will be identified in the operations manual, which will be submitted in the future as a condition of the license. The MDEP will evaluate proposed daily cover materials against their ability to meet performance objectives of the Regulations.*

Incinerator ash is not an acceptable material for final cover.

Comment: Ash will blow onto area residents' property.

Response: *The MSW incinerator ash from Maine incinerators is not a dusty waste; it hardens as it dries and has not been a dust problem at the*

existing landfills that accept it. If it was found to be a problem, Casella would be required to solve the problem.

Comment: All town offices, police, rescue and fire departments along the traffic routes should be notified of the proper procedures to follow if there's an accident with a truck hauling special waste. The trucks should be labeled as hauling special wastes.

Response: There are no State or federal requirements for the labeling of vehicles carrying special waste other than the decals required under the current Non-Hazardous Transporter Rules (06-096 CMR Chapter 411). Municipalities are aware that trucks hauling waste travel through their towns. They are aware that if they do not have the proper equipment and/or appropriately trained personnel they can either call the State Police (who will contact the MDEP) or the MDEP for assistance.

Comment: Nearby residents can hear truck gates banging and sometimes smell the landfill; what will it be like in the future?

Response: *The proposed odor control measures are expected to be effective at controlling off site odor. The amendment license contains a provision for noise studies after Casella begins operation of the landfill as a check.*

Comment: Sludge spilled over its berms last fall, and trucks dumped sludge on the access road for traction.

Response: *Sludge has not spilled over the exterior berms of the landfill. No evidence has been found that sludge was used on the access road for traction; by its nature, sludge would make roads slippery, not provide traction.*

13. ACCEPTABLE WASTES

Comment: Has the applicant provided to the MDEP a list of acceptable wastes and unacceptable wastes? Can the applicant later decide to take different wastes?

Response: : *The applicant will be allowed only to take the wastes that are specifically listed in the application and/or the licenses. If the applicant would like to take additional wastes they must submit an application to the MDEP for review and approval prior to waste acceptance as outlined in 06-096 CMR Chapter 401, section 4.C.(1)(b).*

Comment: Since the same owner also operates the Hampden Landfill, if a waste stream is approved for disposal at the Hampden Landfill, does that mean it is automatically approved for disposal at the WOTL?

Response: *Acceptable waste at WOTL will not be defined by incorporation. No waste streams will be added to the list in the application without a licensing action specific to the WOTL. The operations manual for the facility will contain a waste characterization and acceptance plan that will be updated on an annual basis to reflect any additional waste streams the operator has been approved to accept. If it were the intent of the operator to propose a change to the waste streams for both sites, separate requests would need to be submitted for MDEP approval.*

Comment: How is the ash treated at the incinerator? What is the consistency of the ash prior to transport? How will it be transported? Does it get a slurry on top during transport?

Response: *Incinerator ash is quenched with water prior to transport. Enough water is added to cool and dampen the ash only, no slurry is formed on the ash. The ash is transported in a covered tractor trailer truck to the site.*

Comment: If low-level nuclear waste is reclassified as a special waste (fitting the definition of special waste under the Regulations), can it be accepted for disposal at West Old Town?

Response: *If low-level nuclear waste is reclassified as a special waste and fits the definition of a special waste under MDEP regulations it could be disposed of at the West Old Town Landfill only if the applicant were to request a change in waste stream and the request is approved by the MDEP.*

Comment: Will hazardous waste be brought in for disposal at this landfill?

Response: *No wastes regulated as hazardous waste under 06-096 CMR Chapter 850 will be allowed in the WOTL.*

Comment: Will the WOTL take MSW if an incinerator or an existing MSW landfill closes?

Response: *No existing MSW landfills or incinerators are expected to close in the foreseeable future. If one did, the MDEP expects SPO may wish to take the MSW to WOTL because one o f the stated purposes of the WOTL is to provide capacity for Maine wastes. Any out of state wastes that were being delivered to a facility that closed would not be routed to WOTL.*

Comment: All raw MSW should be landfilled at Pine Tree Landfill until it is at capacity, in order to lessen the odor and traffic impacts of the WOTL.

Response: *The MDEP does not have the regulatory authority to do this. The MDEP is required to process applications it receives in accordance with the applicable regulations. It does not have the authority to delay construction and place limits on operation of a facility that has been found to meet the standards of the regulations.*

Comment: Tri-Community Recycling and Sanitary Landfill ("TCL") is concerned that the WOTL project may impact its ability to maintain the necessary waste streams for it to remain a viable waste disposal facility.

Response: *Casella responded directly to TCL's concerns, and TLC has indicated that its concerns have been addressed.*

Comment: Why say there will be no hazardous wastes disposed when household hazardous waste will be allowed in the landfill?

Response: *06-096 CMR Chapter 850 excludes household hazardous waste from regulation as a hazardous waste. MDEP and SPO have been actively working with the Legislature on measures that will improve management of household hazardous waste in Maine.*

Comment: What procedures will be used to ensure that materials of impermissible quality or concentration will not be dumped at the landfill? How will the trucks be monitored to ensure that any "hot spots" of contamination will not be diluted in the testing process? The landfill operator should not do their own waste testing as there is too much risk for a conflict of interest. Does the MDEP have the authority to test the waste?

Response: *All waste streams licensed to be disposed of in the landfill must be characterized as outlined in 06-096 CMR Chapter 405 prior to disposal. Landfill operators are responsible to ensure that the waste streams are appropriately characterized prior to disposal. In addition waste loads are monitored as they are being dumped and compacted to ensure that there are no unacceptable wastes present.*

Comment: The levels of mercury in the incinerator ash may be unacceptably high. Ash with high levels of mercury should not be allowed at this landfill. Incinerator ash should be tested more frequently than is currently done. This is due to the increasing amount of plastics being incinerated, and the potential for this to cause increasing levels of dioxins and cancer-causing organic compounds in the ash. The list of parameters tested for should be updated regularly to include chemicals that are formed when materials are burned.

Response: *Incinerator ash must be tested for mercury prior to acceptance at the solid waste facility as outlined in 06-096 CMR Chapter 405. During the initial 2 years of waste placement the ash source must be analyzed*

at a frequency of one sample per 200 tons of ash for the first 1000 tons and then 1 sample per 1000 tons, or 1 sample quarterly, whichever is more frequent. If after the initial 2 years of sampling it can be determined that the characteristics of the ash are consistent, the ash source must be analyzed at a frequency of 1 sample per 10,000 tons or 1 sample quarterly, whichever is more frequent. This sampling protocol is required unless otherwise approved by the MDEP. Several years of analyses are available for the incinerator ash that will come to WOTL; the data is consistent. If the testing requirements of 06-096 CMR Chapter 405 are changed, landfill and incinerator operators are required to modify their programs to be in compliance with the Regulations.

Comment: How often is the sludge from treated leachate tested in order to ensure that hazardous sludge is not placed back into the landfill?

Response: *Leachate is not treated on site. It is currently being taken to GP's Wastewater treatment Plant where it is combined with the mill's wastewater and treated. The sludge from the mill's wastewater treatment facility will be tested in accordance with the requirements of 06-096 CMR Chapter 405.*

Comment: G-P's waste stream contains mercury compounds. It appears that over time there would be significant amounts of concentrated mercury handled on a daily basis, i.e., hauling sludge to and from the mill and landfill, and the process of mixing sludge with ash and other materials at the landfill. Will there be a system in place to identify how this mercury will be monitored and controlled for exposure to the workers and nearby landowners?

Response: *The concentration of mercury handled by the landfill staff will not increase with time, however, waste handling procedures will be in place to protect all staff and the public from any contaminant that might be present in the waste. These procedures include covering the waste haul vehicles during transport and compacting and covering the waste daily. Mixing of the waste will be done within the lined cells and will be done in a controlled manner to ensure the safety of those on site. The leachate that leaves the waste cells through the leachate collection system is sampled and analyzed for mercury content, along with the groundwater, three times per year.*

Comment: The waste going to the site will contain many harmful chemicals, but it is not considered "toxic" because these chemicals are in concentrations at limits less than those in MDEP's definition of "toxic". These chemicals are not harmful at these concentrations, and are only an issue when more concentrated. As there will be tons and tons of waste

all going into a certain area of the landfill, how could this possibly not be increasing the concentrations of these potentially harmful contaminants, thereby making them more hazardous?

Response: *Chemical concentrations do not increase as more waste is added as long as the concentrations in the added waste remains the same or lower. Concentration is measured as a ratio; parts per million, grams per kilogram, etc. In order for a concentration to be increased one would have to decrease the total mass of the waste while increasing the mass of the chemical.*

Comment: Is the waste cored into and tested after it has been in place for a while to determine if the waste properties have changed i.e., become more toxic, over time?

Response: *The facility is not required to test the waste for chemical properties after placement. The leachate leaving the waste, however, must be tested at the same frequency as the approved groundwater detection monitoring program as outlined in 06-096 CMR Chapter 405, section 4.D. & E. Potential changes in the waste would be evident in the leachate monitoring.*

Comment: Three instances were brought up of Pine Tree Landfill accepting wastes that tested as hazardous waste. One of the explanations was that if waste tests hazardous it can be resampled and may then test as non-hazardous. Why would the State allow retesting of a waste if it tests hazardous the first time? Instead, the State should require retesting if a waste is nonhazardous to confirm the first test.

Response: *MDEP staff checked on the 3 wastes you listed and found:*

(1) The leather scraps from Irving Tanning were acceptable for disposal under MDEP license #S-01987-WD-BM-M, which allows chrome leather scrap wastes to exceed the regulatory limit for leachable chromium, provided the chromium in the waste is exclusively or nearly exclusively trivalent chromium. The practice is allowed under 06-096 CMR Chapter 850.

(2) As noted in the fax cover sheet from the consultant in the Casco Waste Oil site, the waste in the area of the sample that failed TCLP for lead was not delivered to Pine Tree Landfill. This was a MDEP supervised cleanup; the waste went to a hazardous waste landfill.

(3) The sandblast grit from Rockland Marine Corporation in the area that failed TCLP for lead was also not delivered to Pine Tree Landfill. MDEP also oversaw this cleanup; the hazardous waste went to a hazardous waste landfill.

Retesting of a waste is allowed when the original testing was not done according to the sampling methods referred to in 06-096 CMR Chapter 405, and it's likely that the sample originally tested was not representative of the actual waste characteristics. This most frequently occurs when generators attempt to take their own samples rather than hire a qualified professional, and either contaminate the sample with the equipment they use or don't take a composite sample.

13. AIR QUALITY

Comment: Is there any baseline air quality monitoring data for the area around the landfill? How will changes be measured over time? How will air quality change due to the biomass boiler, the expanded waste stream at the landfill, emissions from the waste trucks and the contents of their loads?

Response: *Baseline air quality monitoring data for the area around the landfill is not available. Baseline air quality monitoring is not a permitting requirement for this type of facility. Air quality monitoring related to the biomass boiler is subject to the permitting requirements for the boiler, which is not part of this application.*

Hydrogen sulfide monitors will be used to continuously sample and record the levels of this air pollutant around the perimeter of the facility. Monitoring will also be done in accordance with the requirements for operating the landfill gas collection and control system, including surface emission scans once the landfill meets the criteria established under the New Source Performance Standards. In addition, monitoring for methane gas levels in structures and site soils will be done in accordance with the operating requirements of the Regulations.

Comment: Will the air around schools, recreation areas, etc. be monitored?

Response: *The MDEP's Air Bureau has conducted air quality monitoring in Old Town, Bradley and Milford for several years. This monitoring is expected to continue.*

Comment: What research has been done on the air quality impacts from the WOTL? Who performed and/or paid for the work?

Response: *The MDEP is unaware of any air quality impact research in the vicinity of the WOTL.*

Comment: Maine has the highest rate of childhood asthma in New England. Air pollution can lead to the onset of asthma. What will be done to mitigate air pollution caused by diesel emissions and landfill gas?

Response: *The landfill gas will be destructed by flaring; the system will be licensed by the MDEP's Air Bureau. The Air Bureau is also the contact for information on diesel emissions data.*

Comment: The existing dust problem on the road is caused by sludge, not dirt. Is there dioxin in it?

Response: *Dioxin results on the Old Town Mill's sludge show dioxin levels below the regulatory threshold for agricultural utilization (landspreading). A small amount of sludge is tracked onto the access road and thus makes up a small percentage of the dust on the access road.*

Comment: Are there better ways to manage the landfill gas other than flaring the gas?

Response: *Flaring landfill gas is a proven technology for controlling landfill gas emissions. Flare technology is required to meet at least a 98% destruction efficiency of the landfill gas. However, the MDEP recognizes the benefits of using the landfill gas for uses such as conversion to electricity or direct use in a boiler. The MDEP will encourage consideration through a work group of such use at landfills that are large enough to support this technology, generally landfills that have, or will have, greater than 1 million tons of putrescible waste in place. The West Old Town Landfill proposal meets this basic screening criteria.*

Comment: How bad will the odors be from this landfill, and how far away from the landfill will the odors be noticeable? Landfill odors are noticeable currently approximately 50% of the time. Will the enclosed leachate storage tank and the proposed gas management system reduce the odors currently experienced? How do nearby residents resolve odor issues?

Response: *By the nature of the wastes involved in a landfill, variations in atmospheric conditions, and the differences in people's sensitivity to odors, it is not possible to definitively state that odors will not at times be noticeable. As noted in the response below, the applicant has proposed an appropriate odor control plan that will be an integral part of landfill operations. The MDEP has placed a condition on the license requiring additional measures be taken as necessary. As noted in the comment, the use of an enclosed leachate storage tank and the implementation of a gas management system during initial landfill operations will greatly reduce the potential for off-site odors. The appropriate use of daily cover and an odor control misting system are also positive steps towards minimizing landfill odors. These steps will minimize the potential for unreasonable adverse impacts due to landfill odors.*

Typically the sulfides present in the landfill gas contribute to odors around a landfill. Although the sulfides will be collected and destroyed in the gas management system, the MDEP is requiring the placement of hydrogen sulfide air monitors around the facility. These monitors will continuously sample the air, and can be used to confirm the effectiveness of the landfill gas collection and control system. The requirement for hydrogen sulfide monitors is a condition on the license.

The applicant has committed to maintaining a 24-hour per day, 7-day per week complaint line staffed by a person. If odors are detected, this complaint line can be utilized to register the complaint, which will require an investigation and resolution by the landfill operator. In addition, odor issues can be addressed to the MDEP.

Comment: The landfill in Hampden currently smells. Since it is the same operator and a similar waste stream, why should the West Old Town site be any different?

Response: *There are some fundamental differences between the two landfills referenced that should be considered. However, by the nature of the wastes involved in a landfill, variations in atmospheric conditions, and the differences in people's sensitivity to odors, it is not possible to definitively state that odors will not at times be noticeable. The most fundamental difference between the two referenced landfills is that at West Old Town, the Gas Collection and Control System (GCCS) will be installed and operated as soon as gas production begins. In Hampden, a GCCS was not implemented along with initial landfill operations. Although one is being added as new capacity is built, it is more difficult to retrofit a site than to plan for one as an integral component of operations.*

The applicant has committed to odor control measures at the landfill, including the use of appropriate daily cover and an odor misting system. The final details of the odor control plan will be submitted for MDEP review and approval as part of the operations manual. A separate odor control plan will be submitted for MDEP review and approval addressing the measures necessary during waste excavation and mixing associated with the test plot program. The MDEP has placed a condition on the license requiring the operator to take additional odor control measures if the MDEP determines that the proposed measures are not sufficient.

Comment: The draft license states that there will be a gas management system to extract gas from the landfill. Initially, passive flares will be used. Will the passive flares emit mercury or other heavy metals? If gases are identified at levels sufficient to support combustion, will the gas then be used on site for power producing purposes or sold elsewhere for other uses? If so, will there be a testing procedure in place to identify any possible mercury or heavy metals contamination?

Response: *The comment regarding mercury in landfill gas is pertinent to the proposed passive flares as well as the flare station associated with the active gas management system. Emissions from a landfill flare station are regulated by the MDEP's Bureau of Air Quality. Mercury is generally a constituent of landfill gas in the microgram per cubic meter range. Maine's mercury emission estimate, based on 2002 data, is that the contribution of mercury emissions from all of Maine's landfills combined is approximately 0.4% of the total mercury emissions in Maine (ref. Mercury in Maine A Status Report, Report to the Joint Standing Committee on Natural Resources, February 2002).*

There is agreement in the literature that the landfill gas combustion process converts the organic mercury compounds to inorganic compounds. There is no evidence that it contributes to the destruction of any inorganic mercury compounds. The following excerpt from the U.S. EPA's Landfill Methane Outreach Program is typical:

> *"Mercury, although present throughout the environment, is a health concern because it can bioaccumulate through the food chain as methylated mercury, an organic, more toxic form of mercury. Sources of mercury in MSW landfills include batteries, fluorescent light bulbs, electrical switches, thermometers, and paints. Once mercury enters the waste stream, it will ultimately be released from the landfill and is contained in uncontrolled landfill gas. However, combustion of landfill gas reduces the toxicity of landfill gas emissions by converting the organic mercury compounds, including methylated mercury, to less toxic, less hazardous, inorganic mercury compounds."*

Comment: Did the MDEP contact the EPA to investigate more environmentally protective measures to manage landfill gas? Did the MDEP take advantage of the contact information provided to them to discuss the issues with EPA representatives? It is the responsibility of the MDEP to investigate the technologies proposed by an operator, and review these technologies with the current information available. This must be done before permitting the amendment.

Response: *The MDEP is in frequent contact with EPA regarding landfill gas management issues. As noted in the comment, EPA has a Landfill Methane Outreach Program (LMOP) to assist States and landfill operators with issues associated with landfill gas management. The MDEP receives monthly information from LMOP, and has had direct communication with LMOP on landfill gas management issues. We agree with the comment that the MDEP is responsible for staying current on technologies, and the MDEP takes this responsibility seriously. EPA's LMOP is one source of information the MDEP utilizes to meet this responsibility.*

15. TRAFFIC MOVEMENT

Comment: What is the route trucks will travel to bring waste to the landfill?

Response: *The record for the project identifies the 6 routes (5 state road networks plus I-95) MDOT reviewed under the solid waste regulatory criteria for traffic. All the routes have positive and negative aspects, but all are viable routes over which trucks currently travel. MDOT staff found that adding the number of peak hour vehicles associated with this project to any of the routes will not have a negative effect on the functionality of any of the routes.*

Comment: What happens when roads listed as part of the route are posted or under construction?

Response: *It is recognized that road posting and construction are a constant factor in traffic movement in Maine. Just as all other drivers do, waste haulers will adjust the routes they use to avoid areas that are posted or under construction.*

Comment: Have there been any studies on increased traffic and the danger to children?

Response: *While MDOT staff cannot refer to any studies, any additional traffic on any road increases the chances of crashes as the number of potential conflicts gets higher. As for safety to children, it is not possible to say a child will not get hit, but with the proposed increase in traffic MDOT does not expect it to become a problem.*

Comment: The MDEP should limit the truck weight to 80,000 pounds so all trucks can use I-95.

Response: *The routes proposed for traffic movement have been found to be capable of safely accommodating the number, weight and types of vehicles transporting waste. Neither the MDEP nor the MDOT has the authority to impose limits on one party that are inconsistent with the rights of all parties to travel on all State and State Aid Highways*

unless the travel is specifically limited by law or regulation. The weight limit on State and State Aid Highways is 100,000 pounds.

Comment: What will the pedestrian impacts be from the truck traffic?
Response: *Trucks use these roadways now. The incremental truck traffic is small in terms of total traffic. The impacts should be minimal.*

Comment: How will vehicles and pedestrians crossing the road at the MAFES Research Station the Bennoch Road be impacted?
Response: *The incremental increase in traffic will not be significant. Given the current volumes and the additional truck traffic proposed, other than potential additional noise generated by passing trucks, the impact should be minimal.*

Comment: Who will be liable for the cost of repairing road damage caused by trucks carrying out of state waste? Is there a direct tax on this waste to offset the costs for state residents?
Response: *The MDOT is responsible for fixing all state and state aid roads. The MDOT's money to fix the roads basically comes from gas tax money. There is both a federal and state gas tax. The federal tax money comes back to the MDOT in the form of a biennial apportionment from the Federal Highway Administration, this money is matched by money from the state highway fund which is funded by the state gas tax.*

Comment: Casella should have to install bike/pedestrian paths/crosswalks with traffic lights on roads its trucks will use, as well as address all safety issues (road posting, curves, signage, etc.) before the project is approved.
Response: *The proposed haul routes are all currently used by trucks. As noted by MDOT in a letter dated March 15, 2004, citizens concerned about impacts on bicyclists and pedestrians can work with their municipal government to address the concerns in the municipality's comprehensive plan, so that the municipality can then ask MDOT to consider these issues in a future construction program.*

Comment: There is no maximum limit on the number of trucks using the landfill, so the traffic evaluation is useless.
Response: *Although the traffic evaluation is based on an estimate of traffic, the estimate is based on actual numbers of vehicles using the Pine Tree Landfill in Hampden. Again, although the amount of waste expected to be transported to WOTL is also an estimate, it is based on the quantity of acceptable waste Casella expects to be available in Maine.*

Comment: Traffic should not be routed through Hudson on Route 43; there are already too many trucks on the road and it's not designed to handle it. There are concerns with the safety of children and commuters, the town's ability to handle any spills, deterioration of the roadway, and the potential for additional accidents.

Response: *According to MDOT the road can handle the traffic associated with this project. MDOT or MDEP cannot say that it is okay for all trucks except for trash trucks to run on Route 43.*

Comment: Why did MDOT favor traffic going through downtown Old Town instead of on Bennoch Road (Rt. 16)?

Response: *MDOT did not favor one route over any other. The MDOT listed several possible ways to get to the facility. Basically trucks have the right to travel over any state or state aid road. If the trucks find it shorter to use Bennoch Road than Route 2, then they can.*

Comment: Why can't Casella make trucks using its facility limit their weight to 80,000 pounds and thus use I-95 instead of local roads?

Response: *Casella responded to this question during the licensing process. The tipping fees contained in its response to SPO's Request for Proposals were based on trucks hauling more than 80,000 pounds. There would be a very significant increase in costs associated with lowering the truck load weights that cannot be borne under the tipping fee schedule contained in the Operating Services Agreement between Casella and the State. Also, vehicle emissions would increase.*

Comment: The federal government should be pressured to allow I-95 to accommodate 100,000 pound vehicles.

Response: *State and local government, businesses, and Maine's congressional delegation are all working to attain approval to increase the weight limit on I-95 north of Augusta to 100,000 pounds. One current proposal is to seek approval to raise to limit for a period of time in order to study accident rates, etc.; if the favorable findings expected are found, a permanent change would be pursued.*

Comment: Access to the site from Route 43 should not be allowed, even if a leachate line is allowed to be installed through the wetland.

Response: *The applicant realizes the MDEP would not approve this change and has no intention of requesting it.*

Comment: Casella should be required to use only the existing access road, it should not be allowed to access the road from the Old Stagecoach Road.

Response: *MDEP staff asked Casella if it had any intention of requesting to access the facility from the Old Stagecoach Road and was told it did not. Staff can only evaluate existing proposals.*

Comment: The roads in the area of the landfill are already deteriorating from the volume of truck traffic. How can the MDEP allow more?

Response: *While the roadways in this area are not superhighways, they do serve a purpose for moving traffic. Some of these roads are posted during the spring thaw to extend their functional lives. These roadways still handle the trucks traveling over them. When the time comes, these roadways will be serviced and built to better standards. Until that time if other trucks are allowed to travel this road, the trash haulers will also be able to use these roadways.*

Comment: Cyndi Darling approved a MDOT traffic report that was incomplete and incorrect.

Response: *The MDEP is not sure what the commentor is referring to. It's likely the reference is to an electronic copy of MDOT's 1/28/04 review memo that Ms. Darling sent to a resident on 1/29/04 at their request. Ms. Darling informed the resident that the complete memo had not yet been received by the MDEP but the resident requested that she be sent what was currently available and had been provided to the press. Ms. Darling mailed a copy of the complete memo to the resident when it was received. MDEP staff are not able to "approve" a MDOT report.*

Comment: Trucks should not be allowed to use North Main Street in Brewer and Route 9 in Eddington; there is already too much truck traffic. The MDOT has been looking at a connector route from I-395 to Route 9 to alleviate the traffic. This area is a congested area.

Response: : *There is significant truck traffic on Route 9 in the Brewer-Eddington area, but as far as congestion, it does not meet the definition of congestion as defined by the Highway Capacity Manual. Congestion is a defined term and this does not meet the definition.*

Comment: Traffic should not be routed through Bradley.

Response: *Any vehicles meeting the applicable standards are allowed to use any state or state aid highway*.

Comment: Why was a full traffic study not required?

Response: *A full traffic study is required if the MDEP finds that the application does not contain sufficient information to determine that all of the traffic standards in the Regulations will be met. That determination was able to be made with the information provided by the applicant.*

Comment: Route 1A should not be used for truck traffic between Hampden and Old Town.

Response: *This route was removed from the listed haul routes routes, although this route could be used by a vehicle hauling waste.*

Comment: Who is responsible for the cleanup if a truck leaks or loses its load?

Response: *Like any other accident, law enforcement officials will evaluate an accident. The owner or operator of the truck is responsible for the cleanup of waste spilled as the result of an accident; if another party is found to have caused the accident it is assumed the trucking firm will be reimbursed for the costs of cleanup.*

Comment: There's a narrow bridge over Pushaw Stream that isn't wide enough for a large truck and a large-type passenger vehicle. Why is it acceptable for this route to be used?

Response: *The bridge over Pushaw Stream on Route 43 in Old Town is 44 feet wide which is adequate for two trucks to pass.*

Comment: MDOT should visit the Route 16/access road/I-95 ramp area; the distances provided in the application are not accurate.

Response: *The MDOT Representatives have visited the site. If the distances being referred to are sight distance, then that has been checked and the facility has the required sight distance for the posted speed.*

16. EXISTING USES and SCENIC CHARACTER

Comment: Instead of placing a condition for a visual review at 330 feet, why not just limit the height to that (not allow development of cells 9, 10 & 11)? The State/Casella would lose only 1.5 million tons of capacity by doing this. In addition, the MDEP appears to be concerned about stability at the 390 foot level.

Response: *The disposal capacity proposed in the amendment application has been shown to be appropriate for meeting the terms of the Operating Services Agreement. The OSA requires that Casella provide disposal capacity for GP's wastes for 30 years. Although Casella plans to submit an application for expansion of the WOTL in the future, it does not know at this time what the potential capacity of the expansion would be, and it certainly does not know that the MDEP will approve the expansion. As provided elsewhere in this document, the MDEP is not concerned about stability at the proposed final elevation of 390 feet.*

Comment: The height of the landfill should be limited to that which the MDEP can affirmatively find poses no adverse visual impacts from Route 43

or the homes along it. If at some later time the applicant can show there won't be undue impacts from a greater height it can seek an amendment to the license. The MDEP cannot use a condition to fill the gaps in evidence before it at this time.

Response: *The MDEP has affirmatively found in its review of the information available to staff and the consultant hired to assist in the review that the proposed final elevation of 390 feet will not pose an unreasonable adverse visual impact. The condition was placed in the license to monitor the landfill and the modeling parameters used in the review. The condition places the burden of proof on the applicant to prove the positive, rather than on the MDEP to prove the negative, during long-term operation of the landfill.*

Comment: If the MDEP is uncertain that the noise model in the application is accurate, it cannot issue the license; a condition cannot be used to fill the gaps in the application.

Response: *The MDEP is certain that the noise model is accurate. The condition was placed in the license as a monitoring condition on the facility, much as the MDEP requires ongoing monitoring of water quality and stability when models show neither will be impacted by operation of the landfill. It the actual noise studies show impact not anticipated in the model, the operator will be required to remediate those impacts.*

Comment: The new wastes will attract seagulls, rats, crows, starlings, etc. Some of these species will carry ash and other wastes onto neighboring properties.

Response: *This has not been a problem at other facilities; thus the MDEP does not expect one to occur at WOTL.*

Comment: Casella cleaned the access road in mid-March and caused a major dust problem. Is that what we should expect in the future?

Response: *No. The event in March was performed by a sub-contractor hired by Casella, and was exacerbated by the heavy layer of winter accumulation. Casella owns equipment capable of controlling the dust on the access road; this equipment will be brought to the facility shortly after issuance of the amendment application. Casella will pave the access road sufficient to manage dust. The MDEP encourages people to use the 24 hour complaint line to be established by Casella, and/or to contact the MDEP if dust is an issue.*

Comment: Will there be road improvements on Route 16?

Response: *MDOT staff visited Route 16 during review of the traffic impacts of this project. MDOT determined no turn lanes were required, and that*

no mitigation other than lighting the landfill access road to make it easier for trucks to find was necessary.

16. STORMWATER MANAGEMENT

Comment: A commentor questioned the finding that there will be no net increase in storm water run-off from the site. It was noted that precipitation amounts will not change, but the amount that is intercepted and evapo-transpirated by the existing forest canopy currently is significant. With the loss of this forest canopy, the water that has been attenuated by this natural system will now be readily available as run-off. Furthermore, the barren mineral soil surfaces will speed up the velocity of storm water flow, leading to increased soil erosion. This will likely lead to a breach in the 30-foot high perimeter berm.

Response: *It is correct that the rate of runoff will increase with the development of the site. To account for the increase, three stormwater detention basins are included in the design to contain and release the runoff at a controlled rate. The net result is a small decrease in the post-development peak runoff from the site when compared to the pre-development peak runoff.*

Stormwater will be managed at the site using a combination of temporary and permanent culverts, ditches, terraces, berms, and downchutes. All permanent structures have been sized to convey runoff from a 25 year/24 hour storm event. Temporary structures have been designed to convey runoff from a 10 year/24 hour storm event. Condition #15 of the draft order requires the submittal of a project specific erosion and sedimentation control plan prior to the commencement of any construction. All erosion and sedimentation control measures will be required to be implemented in accordance with the MDEP's Best Management Practices Manual[5].

18. EROSION AND SEDIMENTATION CONTROL

(no comments received)

19. RECYCLING AND SOURCE REDUCTION

Comment: Where does incineration fit in the waste hierarchy?

Response: *It comes just before landfilling. The hierarchy is – reduction, reuse, recycling, composting, waste processing which reduces the volume of*

[5] *Maine Erosion and Sediment Control BMPs* DEPLW0588, Bureau of Land and Water Quality, Maine MDEP of Environmental Protection, March 2003

waste needing land disposal, including incineration, and land disposal.

Comment: By law, E-waste, batteries and household hazardous wastes should not be landfilled or incinerated. People should be educated about the toxicity of burning plastics and plastics; they should not be allowed to be incinerated. SPO should do more education. Recycling should be made easier and more convenient. Towns that are not meeting recycling goals should be required to have mandatory recycling. Landfilling should be above incineration in the waste hierarchy. There should be more composting facilities.

Response: *The Legislature has passed laws banning the disposal (in landfills or incinerators) of household cathode ray tubes in 2006 and mercury containing products in 2005. MDEP has developed several plans concerning management of the types of waste you reference that have been presented to the Natural Resources Committee of the legislature for their consideration; MDEP is actively engaged in promoting the recycling of batteries, collection of mercury containing products, and household hazardous waste. MDEP and SPO have collaborated on developing effective strategy for managing universal wastes and household hazardous wastes. Both the MDEP and SPO have ongoing education programs, and both are advocating for greater efforts to compost food wastes from sources such as schools and restaurants. When funding is available, SPO provides grants for recycling and universal waste collection. Law changes would be required to make recycling mandatory, and to change the waste hierarchy; neither is likely in the near future.*

20. PROTECTED NATURAL RESOURCES

Comment: There is a vernal pool located beside the access road. It's already affected by the road; what impact will approval of this application have on the vernal pool? Were other vernal pools mapped?

Response: *The original application (1991) for the WOTL includes the Natural Resources Protection Act ("NRPA") application for the facility. The wetlands impacts associated with the facility were extensively reviewed, including on site investigations, by both the MDEP's NRPA staff and the Army Corps of Engineers. Both agencies were comfortable with the wetlands mapping for the site.*

Comment: The increase in gulls associated with the change in waste streams may cause disease outbreaks in birds and mammals in the area

Response: *Based on its experience at other landfills in Maine (operating as well as the numerous closed-out disposal facilities), MDEP does not expect disease outbreaks in birds or mammals caused by gulls.*

Comment: If remediation is needed at the facility, how will the wetland on the western boundary be protected?

Response: *Remedial efforts would likely take place near the landfill boundary, and not affect the wetland area. If impacts to the wetland were expected, the MDEP's Land and Water Bureau would be contacted.*

Comment: What is the impact of the project on bald eagles and Atlantic salmon? Has there been an EIS conducted on these species in relation to this project?

Response: *The project will not impact bald eagles or Atlantic salmon. No EIS was required or conducted.*

21. SETBACKS AND BUFFERS

Comment: Landfills should not be located near residents and water supplies.

Response: *The Regulations address proximity of solid waste facilities to residences, water supplies and other natural and cultural features. The MDEP has determined that this facility meets the relevant standards.*

Comment: What does the MDEP consider a safe buffer between the wetland and the landfill?

Response: *The existing buffer between the wetland and the landfill was found to be adequate by the MDEP when the NRPA license was issued. The solid waste boundary of the landfill will not be enlarged if the pending amendment application is approved.*

22. UTILITIES

(no comments received)

23. ALL OTHER FINDINGS OF FACT OF THE ORIGINAL ORDER

Comment: The (brown, spotted) box turtle is on Maine's list of endangered species; MIF&W has mapped habitat for it abutting the landfill property. Will the landfill impact this species? Is there any data to support this? How will other species be impacted? Are there any other endangered (or not) species at risk?

Response: *The box turtle is on the list. However, the box turtle is found, in very limited numbers in southwestern Maine. It is not expected to be found in the vicinity of the WOTL. The spotted turtle is on the list of*

threatened species, but is found in southern coastal Maine. MIF&W has confirmed that it has not mapped habitat for a threatened or endangered turtle abutting or adjacent to the property boundary.

Comment: The landfill is very near a critical wildlife corridor.
Response: *The boundary of the landfill will not be changed if this amendment application is approved, so travel through the area by wildlife will not be changed.*

Comment: Is there a complete archaeological survey of the entire acreage of the property purchased by the State from GP?
Response: *The MDEP does not know of a complete archaeological survey of the entire property. However, the Maine Historical Preservation Commission was a review agent during processing of the original application for the facility. Based on its records, it found that "there are no properties in the project area of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966.*

Comment: What are the risks of bioaccumulation of toxins in wildlife in habitats around the landfill?
Response: *The MDEP does not expect the WOTL to be a significant source of contaminants that bioaccumulate in wildlife. Pathways of wildlife exposure to contaminants that bioaccumulate would include ingestion of contaminated surface waiter, ingestion of waste, and inhalation of airborne material. Ingestion of waste is not a likely cause in this case; the attractive waste would likely be FEPR, which is finely processed MSW. The MDEP has considered the potential impacts of the proposal on surface water quality and air quality, and does not expect either to be impacted in this case.*

Comment: Did a MDEP biologist participate in the review? If so, who? If not, why?
Response: *A MDEP biologist did not participate in the review because the project does not include development of any area not previously approved for development and thoroughly reviewed during the original application review process.*

Comment: Paving of the access road may be detrimental to amphibian migration.
Response: *The MDEP recognizes that paving of the access road has both pluses and minuses. Casella has indicated will pave only the amount needed to control dust. Since the access road will not be enlarged, and nighttime vehicle traffic will be minimal (usually nonexistent), amphibian migration is not expected to be disrupted.*

Comment: Were studies done on the effects of a fence on wildlife migration?
Response: *The MDEP knows of no studies; however, the fence was installed during construction of the landfill and thus has been in place several years with no noticeable effects.*

Comment: The project is required to comply with FAA advisory circular 150/5200-34 because it will be a new MSW landfill.
Response: *The project is not required to comply with 49 U.S.C. §44718 because it does not meet the criteria. Dewitt Field serves only general aviation aircraft and has no scheduled air carrier operations. It is not the recipient of Federal grants under 49 U.S.C. §47101 et seq.*

III. ADMINISTRATIVE and PROCEDURAL MATTERS

Comment: Who is an abutter? The MDEP is required to notify abutters within a mile of the facility at the time the application is filed.
Response: *The term "abutter" is defined in 06-096 CMR Chapter 2. For the purposes of the notice provisions of Chapter 2, abutter means "any person who owns property that is both (1) adjoining and (2) within 1 mile of the delineated project boundary, including owners of property directly across a public or private right-of-way".*

Comment: The City of Old Town has hired Wright-Pierce Engineers to review the application. An extension should be granted until the review is completed.
Response: *The City of Old Town did not request that Wright-Pierce Engineers review the amendment application.*

Comment: Saving jobs should not be a criterion used to evaluate this application.
Response: *The MDEP is evaluating the application in accordance with the applicable criteria in its administrative and solid waste management regulations.*

Comment: Members of the Natural Resources Committee of the Legislature were told there would be a public hearing on this project.
Response: *MDEP has checked into this issue and has determined that a public hearing regarding this site was likely mentioned in the context of any future horizontal expansion of this facility, in which case a public hearing is required in accordance with the Regulations.*

Comment: How can people have been required to provide conflicting technical information when the MDEP is still collecting technical information?

Response: *The MDEP collects technical information throughout the permitting, construction, operating, closure and post-closure periods of facilities. The criterion referred to in the comment relates to requesting a public hearing on an application, and refers to the information contained in the application when it is submitted.*

Comment: It should be easy for people to make complaints about the landfill.
Response: *It is easy for people to file a complaint. Complaints may be made in person, by phone, by email and/or by mail. In addition, people may call the 24 hour complaint line.*

Comment: The application is receiving fast track consideration by the MDEP as a reduced procedures licensing action under 06-096 CMR Chapter 400.3.D(1)(d).
Response: *The application is not being considered under a reduced procedures licensing action. "Reduced procedures licensing" is a type of licensing process for facilities and activities specifically listed in the Regulations. Examples include: "Reduced Procedures for Select Compost Facilities" in 06-096 CMR Chapter 409 and "Reduced Procedures for Select Beneficial Use Activities" in 06-096 CMR Chapter 418.*

Comment: Both State and Federal law require a public hearing on this project. The MDEP should be relying on the normal, dictionary meaning of expansion not the regulatory definition of "expand" in 06-096 CMR Chapter 400.1.WW.
Response: *A mandatory public hearing is not required for this application by either State or Federal law. The application is not for a new or expanded landfill, thus 38 M.R.S.A. §1310-S is not applicable. The federal laws and regulations leave the decision up to the state; no timely requests for a public hearing were received that met the criteria in 06-096 CMR Chapter 2. As with other terms in MDEP regulations, a definition of "expand" is included in the Regulations because it has a specific meaning within the context of the Regulations.*

Comment: How can the MDEP approve this project when much of the testing and planning isn't done?
Response: *The MDEP has sufficient information and data to make a decision on the amendment application. Licensing conditions typically address detailed information that needs to be submitted for review and approval prior to construction or operation of a landfill cell because many of the criteria for landfill licensing require a review of the facility as a whole, and thus the MDEP issues a license for an entire facility. The use of license conditions allows for flexibility to account*

for advances in technology. In addition, conditioning certain information allows the facility and the MDEP to gain important knowledge based on actual operational experience. This knowledge can be used to refine the design and operation of future cells.

Comment: Why didn't the notice of the application thoroughly explain the consequences of the project?

Response: *Section 14 of 06-096 CMR Chapter 2 specifies the content of public notice of an application, the timeframes for filing public notice, and to whom the public notice must be provided. The public notice is required to provide a "summary of the activity", along with information on the timeframe for requesting a public hearing and/or assumption of the application by the Board of Environmental Protection, where the application can be examined, and a statement on providing comments on the application to the MDEP. To ensure that the requirements of Section 14 are met, all solid waste applications where public notice is required include a format to be used by the applicant in filing public notice. The public notice form for this amendment application summarized the project as follows: "…to accept additional solid waste types at the facility and to increase the approved final waste elevations, and associated improvements to the facility's design, including an upgraded liner, leachate collection and storage system, a new perimeter berm, a new active gas management system, and internal road and surface water drainage structure improvements off Route 16 in Old Town."." The provided summary provides sufficient information for persons to decide whether or not to seek more information on the project.*

Comment: What are the differences between a public informational meeting or public forum and an adjudicatory public hearing

Response: *Public hearings on applications are held in accordance with the Maine Administrative Procedures Act (5 M.R.S.A., Chapter 375, Subsection IV), and either the MDEP's "Regulations for Hearings on Applications" (06-096 CMR Chapter 20) or "Special Regulations for Hearings on Applications of Significant Public Interest" (06-096 CMR Chapter 30). Testimony and questioning at these hearings is strictly limited to that relevant to the applicable regulatory standards. 06-096 CMR Chapter 2, Section 7.C specifies that the MDEP may hold public informational meetings, and that these meetings are not subject to the procedural requirements of the Maine Administrative Procedures Act or the MDEP's public hearing rules.*

Comment: How can the MDEP process an application from another state agency?

Response: *The MDEP routinely processes applications from other state agencies, including the Departments of Transportation, Marine Resources, Conservation, Inland Fisheries & Wildlife, and Corrections, the Maine Forest Service, the University of Maine System, and the Atlantic Salmon Commission. This is the second application for a state-owned landfill that the MDEP has processed; the MDEP issued a license to the Maine State Planning Office for the Carpenter Ridge Landfill in the Lincoln area on April 24, 1996. The MDEP processes all applications in accordance with the applicable regulations.*

Comment: Why were all properties that will be passed by trucks going to the landfill not notified of this application?

Response: *06-096 CMR Chapter 2, Section 14 specifies the public notice requirements for applications; these requirements were met for the application.*

Comment: What are examples of "credible conflicting technical evidence" that would justify a public hearing?

Response: *Examples from other projects are: (1) a challenge to the computer model input values used to size detention ponds; (2) a challenge to the computer model input numbers for a groundwater model; (3) a challenge to a proposed odor control plan; (4) a challenge that sufficient money could not be raised for construction; and (5) a challenge that the tax maps submitted with an application were incorrect.*

Comment: Why is everything written in technical language that people can't understand?

Response: *Applications are required to meet the criteria in the Regulations. Although the MDEP attempts to write regulations that can be understood, the solid waste regulatory criteria are necessarily technical in nature and thus applications are written in technical language.*

Comment: A public hearing is needed so Casella and the MDEP can be made to testify under oath.

Response: : *Both Casella and the MDEP responded to comments and questions under oath at the March 29 and 30, 2004 public sessions.*

Comment: Please provide examples of comments that the MDEP received that fall outside the MDEP's purview.

Response: *Numerous comments in this category were received. As noted in the license, the categories includes: comments on the transaction between the State and GP, decreasing property values, the future expansion*

application for the landfill, the role of the Citizens Advisory Committee, and the host community benefits package(s).

Comment: The project should have been reviewed by the Board of Environmental Protection because of the potential for environmental degradation and the degree of public interest.

Response: *The Commissioner considered and determined on January 28, 2004 that the application most appropriately should remain under the Department's jurisdiction.*

Comment: What is the time to process new applications? Amendment applications? Why hasn't the MDEP taken a full 540 days to review the application?

Response: *The MDEP has established guaranteed processing timelines for new applications. The timeline for a new landfill is 540 days. The MDEP does not have timelines for amendment application (or minor revision applications) because the content of these applications varies significantly. The review time for an amendment application is based on the substance of the application.*

Comment: The application should get the full review of a new commercial landfill.

Response: *The application is not for a new landfill, nor is it for an expansion of the solid waste footprint of an existing landfill. As noted in the Basis Statement (response to comments on the draft solid waste regulations) for the current Solid Waste Management Regulations, in the cases of vertical increases in capacity, the siting investigations have been completed and the siting issues do not usually need to be revisited. The MDEP's focus on these types of applications is in the facilities' design, operation and monitoring. The project was reviewed for conformance with the performance standards for new or expanded landfills, and was designed in accordance with the design standards of the current Regulations.*

Comment: What is the MDEP's or State's environmental justice policy? How are social impacts handled?

Response: *The MDEP does not currently have a comprehensive environmental justice policy.*

Comment: Why do the Regulations not address human risk from landfill development?

Response: *The MDEP agrees that solid waste should be disposed only in properly engineered and operated secure landfills that minimize risks to public health, welfare and the environment. The MDEP has*

adopted comprehensive and rigorous landfill rules that are inherently structured to minimize risk through appropriate design, construction and operation and maintenance.

Comment: The MDEP's files should be more accessible to the public. People shouldn't have to make an appointment or have their access to materials limited in any way.

Response: *The MDEP's files are accessible to the public on very short notice, generally in far less time than the 10 days allowed by the Freedom of Information Act. However, in order to assure the integrity of project records, people are not allowed unsupervised access to records that would be difficult to replace.*

Comment: The Toxics Action Center reports Maine's regulations do not adequately protect public health and the environment. 38 M.R.S.A. §1310-U forbids towns from enacting standards stricter than the state's. How is the State protecting its citizens while keeping and creating jobs?

Response: *The MDEP respectfully disagrees with the Toxics Action Center and maintains that its regulations do adequately protect public health and the environment.*

Comment: If the mill closes, the WOTL should also have to close since saving the mill is the reason for the landfill project.

Comment: Granting this license for Casella to operate WOTL will form a monopoly on solid waste. Casella owns an incinerator and a commercial landfill, will operate WOTL, and will own a processing plant for CDD to supply the biomass boiler. There are no limits on these facilities; to comply with the landfill moratorium statute the State must limit the amount of waste allowed into WOTL.

Comment: The Penobscot Nation requests representation on the Old Town/Alton Advisory Council.

Comment: People would like to have had a town meeting type of forum.

Comment: How can the State consider the contract to have been awarded through competitive bidding if only 1 company submitted a bid?

Comment: The State and Casella should be willing to reach some type of accommodation with the citizens to address their legitimate concerns.

Comment: The mill may or may not be here for the long term, but the landfill is here forever. This is not a win-win situation for people living near the landfill.

Comment: The Town of Alton should have full host community benefits.

Comment: The general citizenry learned of the scope of the project late in the process (November or December). Up until then, people thought the State had purchased the landfill and would operate it the same as GP had. There's been too much secrecy about the project.

Comment: Will Casella pay as much or more in taxes than GP does currently?

Comment: How much CDD will it take to meet the fuel requirement in the Operating & Services Agreement? How much CDD does Maine generate? How much of the CDD fuel will be out-of-state waste?

Comment: Will any CDD be "bypassed" from the processing facility to WOTL or GP?

Comment: Casella and/or Pierce Atwood helped write the Resolve that allows this project. Their input may be the reason Casella was the only bidder on the project.

Comment: The biomass boiler could be given to GP with a grant, public bond or a private investment.

Comment: If the State denies the expansion application, will Casella sue?

Comment: Why hasn't GP guaranteed the jobs at the mill will be saved if this project is approved?

Comment: People would like to have had a town meeting type of forum.

Comment: Who is being offered property value protection agreements? How is it decided who gets one? What about the people who are not abutters?

Comment: Does 38 M.R.S.A §2175-A apply to this project?

Comment: The project will be a nuisance as defined in the 3rd Edition of the Dictionary of Real Estate Appraisal, and thus will decrease the value of residential properties in the area. A real estate agent has said that houses close to Pine Tree Landfill have lost 15-20% of their pre-landfill value.

IV. THE STATE'S ACQUISTION OF THE WEST OLD TOWN LANDFILL

Comments and questions received in this category were forwarded to the State Planning Office. SPO has provided the following responses to those comments and questions.

Comment: Did the City of Old Town know it could purchase the WOTL, hire its own operator to operate the facility as revenue neutral, and have control of the landfill?

The plan from the early stages was to have GP sell the landfill to the State.

Comment: Why do legislators say they didn't understand the true scope of the project?

Legislators were involved in the process of drafting and working on the Resolve that authorized the State Planning Office to purchase the landfill. The Resolve authorizing the State to purchase the landfill followed the same procedure as other legislation, including a public hearing and work session before the Joint Standing Committee on Natural Resources. Without knowing what the legislators' meant by not understanding 'the true scope of the project', it would be mere speculation to comment further.

Comment: An effective participatory process should have been arranged by SPO early in the review process.

The State Planning Office and the Department of Environmental Protection followed their rules and regulations, as well as the directive of the Resolve, in reviewing this project and its process. Numerous opportunities for public input were provided that went well beyond what is required in the Department of Environmental Protection's rules or in the Administrative Procedures Act.

Comment: What other tax relief or perks were given to GP to save jobs but cost other taxpayers?

Aside from the commitment to provide disposal capacity and the waste wood fuel stream to support the biomass boiler's operation, no other tax relief or perks were given to GP through this project.

Comment: When will the expansion application be filed? What happens if MDEP denies it? Who will Casella sue?

The expansion application is planned to be filed within the next several years. No guarantee has been made regarding this expansion application's approval; it is a risk that Casella has accepted.

Comment: Bidding on the landfill operation should have been limited to waste companies that do not have landfills in Maine.

The purpose of the Request for Proposals was to solicit interest and bids from qualified landfill operators. To restrict the selection process, as proposed in this comment, was not an acceptable option and likely would have been unlawful.

Comment: The Resolve requires that SPO and GP determine the "existing ground and surface water condition surrounding the disposal facility as of the date of acquisition". The applicant and the MDEP are instead relying on the hydrogeological work done to support the original application in 1991.

The State Planning Office hired an engineering firm (Woodard & Curran) to complete a review of the site and the site's operation, to qualify and quantify environmental concerns, prior to purchasing the property and entering into an operating agreement for the site. Georgia Pacific also hired this engineering firm to complete a comprehensive review of the site and the site's operation, prior to selling the property to the State. Woodard & Curran completed detailed groundwater, surface water and other testing as part of their review, which was made available to all parties. The reviews were completed in the late fall and early winter of 2003.

In late winter 2004, Casella and SPO also reviewed and updated the extensive hydrogeologic work conducted in 1991 as part of the application process for the Amendment Application. This effort included additional groundwater monitoring wells and water quality sampling to confirm performance of the landfill liner integrity.

DEP also reviewed the historical site data, the studies performed in the late fall and winter of 2003, and interacted with Casella for the additional investigations. DEP discussed its findings with SPO. All of the reviewers of site operations and water quality data utilized the decade of quarterly water quality sampling of the landfill that began prior to the landfill operations and has continued routinely up to the present time. SPO, therefore, in addition to conducting its own review, had the benefit of the numerous other engineers' and hydrogeologists' additional data collection efforts and reviews. Importantly, conclusions about the landfill's performance and impacts, drawn by the various reviews, are consistent with one another and not in conflict.

Comment: The "deal" may have followed the letter of the law but not the intent.

This project followed the legislative resolve that was passed and the purpose of state ownership of disposal facilities. To state that the project did not follow the 'intent' of the law is unclear since this comment seems to imply that the 'letter of the law' was different than the 'intent' of the law.

Comment: The expansion application should not be considered until ½ of the estimated time to fill this project has passed, so people can have a chance to see how Casella has managed the landfill.

The operating services agreement in place between the State Planning Office and Casella does require Casella to operate the landfill in accordance with state rules and regulations. Should they fail to do so, the agreement is breached and the State has recourse at that point.

Comment: The only people who knew about the legislative hearings were MRC, the millworkers, GP and other proponents of the project.

Legislative hearings are posted to the public in advance of the actual hearing, both on paper and on the Legislature's web site. All Legislators were also informed of the hearing and work sessions.

Comment: If the mill closes, the WOTL should also have to close since saving the mill is the reason for the landfill project.

The landfill will benefit not only the mill, but the region and the state, by providing an essential service for many years.

Comment: Granting this license for Casella to operate WOTL will form a monopoly on solid waste. Casella owns an incinerator and a commercial landfill, will operate WOTL, and will own a processing plant for CDD to supply the biomass boiler. There are no limits on these facilities; to comply with the landfill moratorium statute the State must limit the amount of waste allowed into WOTL.

The State Planning Office holds both the title to the landfill and the permit/operating license for the landfill. Casella has an operating services agreement with the State Planning Office to operate the landfill and needs to do so in compliance with DEP rules and regulations.

Comment: The Penobscot Nation requests representation on the Old Town/Alton Advisory Council.

The legislative resolve directing the State Planning Office to purchase/operate the landfill included the establishment of a citizen's advisory committee, with membership from the City of Old Town and the Town of Alton. The makeup of this advisory committee was set by Legislative action. To change the composition of the advisory committee would require additional Legislative approval.

Comment: People would like to have had a town meeting type of forum.

Multiple public meetings were held to provide for the exchange of information, with all parties having the opportunity to speak on numerous occasions.

Comment: How can the State consider the contract to have been awarded through competitive bidding if only 1 company submitted a bid?

The State's contract process requires a 'Request for Proposals' (RFP) that is developed without preference or priority. The term 'competitive' refers to the fact that the RFP was not worded in such a way, or had such requirements, that other qualified bidders would have been excluded from consideration.

Comment: The State and Casella should be willing to reach some type of accommodation with the citizens to address their legitimate concerns.

In addition to providing community benefits to both the City of Old Town and the Town of Alton, which will provide funding to address local needs and concerns, abutters to the landfill property will be receiving customized benefits from the landfill operator.

Comment: The mill may or may not be here for the long term, but the landfill is here forever. This is not a win-win situation for people living near the landfill.

Impacts to the communities and residents have been recognized and are being addressed through community benefit agreements and individual agreements with abutters. Additionally, the amendment application complies with the Department of Environmental Protection's stringent standards, which are protective of human health and the environment.

Comment: The Town of Alton should have full host community benefits.

Host community, as defined by the State, is the community in which the disposal facility is located. The City of Old Town is the host community. However, in recognition that the Town of Alton will be impacted, at the entrance to the landfill access road, a community benefit package is being developed between the Town and Casella.

Comment: The general citizenry learned of the scope of the project late in the process (November or December). Up until then, people thought the State had purchased the landfill and would operate it the same as GP had. There's been too much secrecy about the project.

Prior notice of the State's purchase and use of the landfill was provided to the municipal offices, abutters and through legal notices in the local paper. The Resolve that authorized the State Planning Office to purchase/operate the landfill was signed by the Governor in June 2003, after a public legislative process. A meeting was held with local officials in October, and several more meetings followed.

Comment: Will Casella pay as much or more in taxes than GP does currently?

The total financial value of the proposed host community benefit agreement with the City of Old Town and the proposed community benefit agreement with the Town of Alton far exceeds what Georgia Pacific is currently paying the communities in taxes on the landfill property.

Comment: How much CDD will it take to meet the fuel requirement in the Operating & Services Agreement? How much CDD does Maine generate? How much of the CDD fuel will be out-of-state waste?

It is difficult to state with certainty the tonnage of CDD that will be required for Casella to meet the fuel commitment to GP, because the nature and type of CDD will directly influence the 'recovery rate' of usable fuel. If clean CDD, the majority of which is wood, is processed, then the recovery rate will be higher than if the CDD is a mixture of sheetrock, shingles, wood and the like. In 2001, approximately 323,000 tons of CDD were generated in Maine. It is unknown at this point how much, if any, out of state CDD will be needed and processed to fulfill the boiler fuel commitment.

Comment: Will any CDD be "bypassed" from the processing facility to WOTL or GP?

This is an operations decision but the intent is that CDD would be processed into fuel, with the fuel going to GP to feed the biomass boiler and the residue stream going to a disposal facility, which may be WOTL or perhaps another facility.

Comment: Casella and/or Pierce Atwood helped write the Resolve that allows this project. Their input may be the reason Casella was the only bidder on the project.

The Resolve was written by legislators, Governor's staff and State Planning Office.

Comment: The biomass boiler could be given to GP with a grant, public bond or a private investment.

There was no funding option available to support the investment GP needs to make at the Old Town mill.

Comment: If the State denies the expansion application, will Casella sue?

Casella understands, and has agreed to, that the expansion application will be reviewed and considered by the Maine DEP, which is an independent agency. No guarantee has been made that the expansion permit, if granted, will be for the anticipated capacity.

Comment: Why hasn't GP guaranteed the jobs at the mill will be saved if this project is approved?

The private sector is not able to make this type of guarantee.

Comment: People would like to have had a town meeting type of forum.

Multiple public meetings were held to provide for the exchange of information, with all parties having the opportunity to speak on numerous occasions.

Comment: Who is being offered property value protection agreements? How is it decided who gets one? What about the people who are not abutters?

Property value protection is being provided to abutters through agreements with Casella. Casella will also establish a property value protection agreement with some property owners who are not abutters.

Comment: Does 38 M.R.S.A §2175-A apply to this project?

Yes.

Comment: The project will be a nuisance as defined in the 3rd Edition of the Dictionary of Real Estate Appraisal, and thus will decrease the value of residential properties in the area. A real estate agent has said that houses close to Pine Tree Landfill have lost 15-20% of their prelandfill value.

The opinion offered by the real estate agent is in conflict with sales information related to the area referenced.

V. SOLID WASTE DISPOSAL CAPACITY AND FACILITY ISSUES

Comments and questions received in this category were forwarded to the State Planning Office. SPO has provided the following responses to those comments and questions.

Comment: Why not develop Carpenter Ridge Landfill instead of permitting this change in use of WOTL?

The opportunity provided by the WOTL, an operating landfill (with over 7 years of operation) that is presently permitted for a higher capacity than Carpenter Ridge, plus being one that is in compliance with DEP rules and regulations and is closer to point of waste generation, is significant. Carpenter Ridge is a 'green field' site, with no facilities (not even an adequate access road – 2 miles needed). The State was able to turn a liability for GP into an asset, allowing GP to make needed upgrades to the Old Town Mill, allowing it to become a more competitive mill.

Comment: Costs of waste disposal should not be lowered; they should be increased to encourage recycling.

The disposal fee accepted by the State is a ceiling fee set by Casella, which will allow communities to better predict future solid waste management costs. Part of Casella's proposal is to work with communities to improve recycling and composting programs.

Comment: Don't develop the Carpenter Ridge Landfill either; send all ash to southern Maine instead.

Disposal facilities are to be sited based upon environmental standards, not geographical designations.

Comment: Commentor submitted calculations using numbers from several sources to demonstrate that the capacity of WOTL is far more than is needed for Maine waste.

The current capacity at the WOTL is approximately 3 million cubic yards. We believe additional capacity, that meets DEP disposal facility requirements, is available at the site. The security of having a long term disposal option for Maine waste cannot be understated.

Comment: If out of state waste is necessary to make incinerators profitable then the FEPR, ash and bypass from the wastes should be returned to the out of state generators.

Only two of the four incinerators accept out of state waste. PERC accepts approximately 15% of its waste from out of state sources, to maintain a steady and level fuel supply for its boilers (to fulfill the energy generation commitment it has to Bangor Hydro. Maine Energy (Biddeford) was designed to accept more waste than what was available in Southern Maine and has accepted varying amounts of out of state waste during its years of operation.

Comment: Landfills should be sited in unorganized townships.

Disposal facilities are to be sited based upon environmental standards, not geographical designations. In fact, in the early 1990's, an attempt was made to site a landfill in Township 30, which was unsuccessful.

Comment: The state owned landfill should be located closer to the source of the waste to save on transportation costs.

Disposal facilities are to be sited based upon environmental standards, not geographical designations.

Comment: There is no need for more landfill space at the moment, and Carpenter Ridge has been identified as the State's next landfill.

The State Planning Office estimates that with current generation and landfilling rates, that landfill capacity will become a concern within the next few years, which would prompt the Office to recommend developing a disposal facility. The WOTL is an opportunity that addresses many disposal concerns and will help stabilize disposal fees.

Comment: Bypass should not be allowed to come into Maine. Bypass occurs because too much out of state waste is brought in.

Out of state solid waste is brought into Maine daily, just as Maine exports to other states a portion of its solid waste, recyclables and all of its hazardous waste. The bypassing of solid waste is an operational concern of incinerators and efforts are in place to minimize out of state solid waste that needs to be bypassed directly to landfills.

Comment: Diverting in state waste to WOTL will result in Pine Tree Landfill accepting more out of state waste.

The Pine Tree Landfill is a commercial landfill and operates as such. Whether or not more out of state waste is delivered to that landfill is an operational decision.

Comment: WOTL should not be allowed to begin accepting waste until PTL reaches capacity.

This restrictive option is not being considered.

Comment: Will Maine be moving towards zero waste management?
Maine has been promoting waste reduction, reuse, recycling and composting since the early 1980's, and more actively since 1987. In addition, the DEP has an aggressive waste reduction program that works with manufacturers to reduce both the quantity and toxicity of wastes generated. We are working to reduce both the volume and toxicity of the wastes we generate but also support increased manufacturer participation in achieving these reductions.

Comment: Commentors are concerned about the amount of out of state waste that will be allowed into the facility; it sounds like there are no limits. This removes the incentive to reduce solid waste generation and increase recycling. The State should establish a limit on out of state waste. Why say there won't be any out of state waste coming to the landfill when its clear there will be?

The landfill operating services agreement between the State Planning Office and Casella does not permit the disposal of 'out of state' generated wastes at the landfill.

Comment: Only 1 incinerator in the State would be needed if we reduce the waste that will be incinerated by 30% by aggressive recycling.

The State Planning Office and Maine communities support increased recycling and composting and work to achieve that goal (in 2001, 37.3% of the municipal solid waste generated in Maine was recycled). However, even if recycling reached 50%, that still means that 2500 tons of waste a day would need to be disposed of by incineration or landfilling.

VI. BIOMASS BOILER and CDD as FUEL

Comments and questions received in this category have been forwarded to Bureau of Air Quality Control. The bureau intends to provide responses in the near future.

Comment: What types of fuel will be burned in the biomass boiler?

Comment: What is the status of the study being undertaken by the MDEP, UM and Boralex? Is the study pertinent to GP's biomass boiler project?

Comment: Will traffic associated with the biomass boiler be considered?

Comment: The biomass boiler could be made less toxic by burning slash left from the logging industry instead of CDD.

Comment: What happens to the biomass boiler if the mill shuts down?

VII. LOCAL PARTICIPATION/ISSUES

These comments and questions are not within the scope of this licensing action.

Comment: What control does Old Town have over the landfill?

Comment: The deal violates 30-A M.R.S.A. §4352 (Zoning Ordinances Home Rule Limitations). In addition, a condition of approval on James River's municipal license stated that no transfer of ownership of the development could occur without the written permission of the Old Town Planning Board.

Comment: Will businesses and residents be compensated for loss of property value and revenues caused by the landfill?

VII. OTHER COMMENTS and RESPONSES

Comment: Are there any reprocessing plants in the state?

Response: *There are 31 facilities listed on the MDEP's list of licensed processing facilities in the state.*

Comment: Why weren't the citizens given the opportunity to vote on this project?
Response: *Citizens in the municipalities in the Old Town area were able to petition their municipality for a referendum on this issue at any time.*

Comment: Utilizing railroads for waste transportation instead of trucks would reduce costs and burdens on residents along the truck routes.
Response: *It is likely that rail transport could reduce costs. Unfortunately, the number of active rail lines in Maine is decreasing, and the likelihood of finding a suitable landfill site adjacent to an active railroad, in a location where a rail yard could also be developed, is not good. The alternative would be siting a transfer facility near the rail line, but many of the same issues associated with development of a landfill will still need to be addressed.*

Comment: There should be a green plan for this project.
Response: *The State of Maine does not currently have a green plan initiative. However, it is taking many of the preliminary steps necessary for this type of program, including its Land Stewardship initiative, and the Smart-Growth and Step-Up programs over which the MDEP has oversight.*

Comment: There should be a tax on out of state waste. In state waste should have a lower tipping fee at the incinerators than out of state waste.
Response: *Legally, it is not possible to impose a discriminatory tax on out of state waste sent to Maine for disposal.*

Comment: Cyndi Darling should not have been the project manager for this application because she submitted a letter of reference to Casella to the State during the RFP process, and thus is impartial.
Response: *Ms. Darling did not submit a letter of reference for Casella to the State. She is the project manager for the only landfill Casella owns in Maine, and was listed as the State contact for questions concerning Casella's experience in operating a landfill.*

Comment: Even if Dr. Wardwell recuses himself from the appeal process before the BEP, won't he carry weight with the rest of the BEP members?
Response: *As explained by Dr. Wardwell during the public session held March 30, 2004, the BEP is a voluntary citizen board and members of the BEP routinely are required to recuse themselves from consideration of projects in which they have past of current involvement. Members of*

the BEP are accustomed to this happening and it doesn't effect their consideration of projects.

Comment: The decision on the application should be extended until all questions have been answered and to allow people to respond to new information they heard on the last day of the March public sessions, or to allow more information or studies to be completed.

Response: *The schedule for issuance of a final decision was in fact extended in order to accommodate additional public sessions at which comments were received and questions posed. All comments or questions have been considered by the MDEP and are addressed in this document or in the license.*

Comment: What are the cumulative health risks to Old Town citizens and adjacent communities? Are there studies? If not, will there be any before the decision on the project is made?

Response: *The MDEP is not aware of any studies of cumulative health risks to citizens in the Old Town area. The Regulations do not require such a study.*

Comment: Is Old Town required to purchase environmental disaster insurance? If so, how much does it cost?

Response: *No.*

Comment: The MDEP needs to have rules for more eco-friendly landfill technology, i.e., wet-cell and methane harvesting.

Response: *The MDEP has and will continue to investigate and remain current on new landfill technology. The MDEP has been very active in the area of methane gas utilization and discussed with Casella possible additional research and evaluation of wet cell technology.*

Comment: Where will bypass go once PTL reaches capacity?

Response: *It is unknown at this time where bypass will be taken. The SPO is responsible for assessing landfill capacity on a 5 year schedule.*

Comment: Does the MDEP know what chemicals have been buried in the WOTL?

Response: *Staff have been to the WOTL numerous times, both with and without prior notice to the operator, and have never seen evidence of chemicals being stored or disposed at the facility. In addition, a baseline study of the landfill conducted by Woodard & Curram late in 2003 as a condition of the Purchase and Sales Agreement included a*

metal detection survey that detected no significant, unexplained metal anomalies.

Comment: What is the remaining capacity of PERC and Maine Energy?
Response: *Incinerators do not have "remaining capacity". The term "remaining life" is used for them. The remaining life of PERC is estimated at 2023; it reflects the year in which the facility is completely depreciated for accounting purposes. The remaining life of Maine Energy is estimated at 2025, although it doesn't base this on depreciation. Note that these figures are estimates; the MDEP expect them to operate well beyond these times.*

Comment: What does the MDEP protect?
Response: *The MDEP's mission as established in statute by the Maine Legislature is as follows: "The Department shall prevent, abate, and control the pollution of the air, water and land and preserve, improve and prevent diminution of the natural environment of the State. The Department shall protect and enhance the public's right to use and enjoy the State's natural resources and may educate the public on natural resource use, requirements and issues."*

Comment: Why were staff not allowed to talk with people and the press?
Response: *The MDEP did not place a "gag order" on staff talking with citizens or the press. Staff on the project team found themselves spending the majority of their time responding to the public and thus were unable to spend time reviewing the WOTL project and/or the many other projects in their workload. Since many of the questions were general in nature, the MDEP in place a system to spread the questions among more staff. People familiar with the project were still available to respond to questions specific to the project.*

Comment: Why was no environmental impact study done?
Response: *An EIS is not required by the Regulations for solid facilities; however, many of the elements of a study are addressed throughout the regulations. This project does not include any additional land development, and thus the majority of the findings of fact made in the original license for the facility were not changed by this proposal.*

VIII. OTHER COMMENTS RECEIVED

These comments were received but either are not relevant to the State's review of this project or within the State's authority to address, or too broad to address in this document.

Comment: What was the numerical breakdown of proponents and opponents of the project?

Comment: The public wasn't adequately informed about this project. People do not always have time to read the newspaper. There should have been a much greater effort by local, state and legislative people to notify people of this project.

Comment: Why didn't the Governor attend one or more of the public meetings?

Comment: Societal change is needed with regards to the handling of solid waste. Review of projects should not be limited to scientific information but also include an ethical examination of the project.

Comment: The traffic and having the landfill in Old Town will be detrimental to the newly revitalized waterfront area.

Comment: It's blackmail to tie saving jobs at the mill to acceptance of this landfill project.

Comment: Reports were submitted indicating a potential for higher cancer risk for people living near landfills.

Comment: Job creation could come from lowering the expectations of large profits.

Comment: What volume of diesel trucks in a given area does the MDEP find to be a risk to ambient air quality? Can the area's geography and the air patterns accentuate this risk? Will diesel emissions, landfill gas and biomass boiler emissions potentially pose human health threats?

Comment: The State must respect and abide by its own environmental laws.

Comment: The development of the landfill will disallow the development of a subdivision and a retirement home on property owned by families near the landfill because no one will buy the lots or place their elders near a landfill.

Comment: We were here first. Why don't we have any rights?

Comment: I/my family will be forced to move if this project is approved.

Comment: Convene a round table forum to discuss all of the issues raised during review of this application.

Comment: Convene a task force, ideally managed by SPO, to establish a comprehensive policy related to expectations of public participation.

Comment: The MDEP should adopt the Core Values of the Dept. of Education enacted by Public Law 1999, Chapter 351.

Comment: The State should establish an office similar to the Office of the Public Advocate for the MDEP.

Comment: The WOTL amendment is not morally justifiable. Regional democracy was disregarded. Decisions should not be made solely on technical, scientific information.

Comment: There are numerous conflicts of interest. They should be addressed and/or eliminated.

Comment: Where are the studies that show there won't be a decrease in property values within 2 to 3 miles of the landfill?

Comment: Tourism will be adversely affected. Young people will move out. Educated, skilled and motivated people will move away.

Comment: Approval of this application will destroy the quality of life of those who live around it.

Comment: Is "fear" credible, conflicting evidence?

Comment: Casella has contributed at least $43,500 to state political entities in the last 1.5 years.

Comment: Odor, even odor from the mill, is not part of daily life in West Old Town at this time.

Comment: Dana Connors testified there is no cost to taxpayers for this project. That's not true; some people's property values will be decreased.

Comment: It's ironic that the State is purchasing land in the Caribou Bog but is willing to put this landfill very near it.

Comment: The question of whether garbage is a good or viable form of economic development should be uppermost in everyone's mind as the application is considered.